THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY.

Vol. VII. CHICAGO, AUGUST 7, 1886. No. 6.

ORIGINAL ARTICLES.

DISEASES AND DEATHS OCCURRING IN THE MEDICAL SERVICE OF JOSEPH JONES, M.D., 1869–1886,

IN THE CHARITY HOSPITAL OF NEW ORLEANS, LA.

WITH PRACTICAL OBSERVATIONS.

(*Concluded from page 119.*)

CONTAGIOUS AND INFECTIOUS FEVERS AND DISEASES.

	Cases.	Deaths.
Dengue	15	
Yellow fever	76	35
Typhoid fever	16	3
Measles	10	2
Scarlatina	4	1
Diphtheria	2	
Mumps	3	
Small-pox	18	1
Asiatic cholera	2	2
Total contagious and infectious fevers and diseases	146	44

Percentage of deaths in contagious and infectious fevers and diseases, 30.1.

Ratio of deaths in 1000 cases of contagious and infectious fevers and diseases, 301.

One death from contagious and infectious fevers and diseases in 3.31 cases.

PHTHISIS PULMONALIS.

Cases, 413. Deaths, 122.

Percentage of deaths in phthisis pulmonalis, 29.5. One death in 3.38 cases. On examination, the mortality records of New Orleans will show that phthisis does not confine its ravages to more Northern cities, but is the cause of an alarming mortality even amongst the natives (creoles) of New Orleans.

About one-tenth of all the deaths occurring in New Orleans are due to phthisis pulmonalis.

Thus the total deaths in New Orleans during thirty-six years, 1844 to 1880, was 242,426, and of this number phthisis caused 24,071. During the period just specified (1844–1880, thirty-six years) the principal diseases occasioned the following number of deaths, as shown by the following table:

DEATHS IN NEW ORLEANS FROM SOME OF THE PRINCIPAL DISEASES DURING A PERIOD OF 36 YEARS—1844–1880.

Diseases.	Deaths.	
Cholera (Asiatic)	11,847	
Cholera morbus	889	
Cholera infantum	2,408	
		15,144
Enteritis	6,915	
Diarrhœa	8,289	
Dysentery	7,097	
		22,301
Phthisis pulmonalis		24,071
Small-pox, scarlet fever and measles	9,381	
Dengue, typhus, typhoid fever, cerebro-spinal fever and simple continued fever	5,932	
Yellow fever	28,739	
Various forms of malarial fever	12,416	
Total fevers		56,468
Grand total deaths caused by the preceding diseases		117,984

Whilst fevers of all varieties destroyed, in the city of New Orleans, 56,478 citizens in thirty-six years, yellow fever destroyed only about one-half this number, namely, 28,739 citizens in thirty-six years; and notwithstanding that, only about one-half of the mortality from fever in New Orleans during the period specified was due to yellow fever. The attention of the citizens of the entire Mississippi Valley is directed to this disease. Congestive fever alone destroyed in New Orleans, during thirty-six years, 6,337 persons; phthisis pulmonalis destroyed nearly as many citizens as yellow fever, namely, 24,071; enteritis, dysentery and diarrhœa, 22,301; and cholera, cholera morbus and cholera infantum, 15,144. Total deaths from phthisis pulmonalis and bowel affections, 61,516.

Those diseases which are common to the entire Valley caused 61, 516 deaths, excluding those caused by fevers, 56,478. Fevers, bowel affections and phthisis pulmonalis caused in New Orleans 117,994 deaths in thirty-six years, out of a total deaths from all causes 242,426.

The statistics afforded by the Charity Hospital of New Orleans are no less instructive. During a period of eighteen years preceding the American civil war—1842–1860—there were treated in the wards of the Charity Hospital of New Orleans 5690 cases of phthisis pulmonalis, of which 3084 terminated fatally; giving 54.1 per cent. mortality. During the seventeen years following the civil war there were treated in the Charity Hospital 5251 cases of phthisis pulmonalis, of which 2525, or 40.8 per cent., died. During a period of thirty-eight years—1842–1880—10,950 cases of phthisis pulmonalis were treated in the wards of the Charity Hospital, 5669, or 51.2 per cent. of which terminated fatally.

Whilst the statistics of the Charity Hospital refer chiefly to the laboring classes, and to those who have been reduced in their circumstances by misfortunes and disease, at the same time we have shown that

the statistics of the city at large illustrate to an equal extent the destructive effects of the insidious disease.

During a period of years extending from 1845 to 1881, the deaths from phthisis pulmonalis have, with the exception of a single year, annually exceeded half a thousand, and in many years have been more than eight hundred. During ten years—1845–1858—(the records of those years which were imperfect being, as in all other estimates, excluded), the deaths from phthisis pulmonalis in New Orleans numbered 6367; during ten years—1859–1869—7251; during eleven years—1870–1881—9016; we have thus, during a period of thirty-one years—1845–1881—a grand total of 22,958 deaths by phthisis pulmonalis.

Surely a disease which steadily claims its victims each year, which in any long series of years has been as destructive as the dreaded yellow fever, should secure the earnest consideration of those charged with the sanitary affairs of this and other cities.

The epidemic of 1878 threw the professional minds of a certain order into a state of morbid excitability on the subject of yellow fever, and the public has been scared with numerous lucubrations on the subject, and quarantine, and the National and State Legislatures have been repeatedly and freely plied with advice and urged to provide money and places for the self-constituted guardians of public health and foreign and inter-State commerce. In comparison with phthisis pulmonalis, which every year destroys its thousands and tens of thousands in every State in this Union, yellow fever should be regarded only as a casual and minor disease, visiting only certain limited portions of the tropical and temperate regions, at long intervals. We hear much of the cost of epidemics, but nothing as to the fearful cost of such a disease as phthisis, which holds its doomed victims in deadly embrace for months and even years, and inflicts, in addition to indescribable tortures, vast, serious pecuniary expenses.

I have given stern facts, with the design of arousing the attention of the medical profession to some of the prominent causes of this disease, and have ventured to suggest some modes of prevention. The necessity of personal and domestic sanitation should appeal to all alike. The people may escape the yellow fever by leaving the infected places, but they cannot escape those causes of disease which spring from the habits, mode of living, and climate, and which are ever present with them, in their assemblies, counting-houses and dwellings, around their firesides and in their beds, devoted to quiet and rest. The chief causes of the prevalence of phthisis pulmonalis in New Orleans appear to be:

1. Imperfect drainage.
2. The saturation of the atmosphere with moisture.
3. Imperfect construction of houses.
4. Imperfect ventilation of houses.
5. Crowding.
6. The neglect of regular exercise for diversion and recreation.
7. Imperfect nourishment.
8. Hereditary taint.
9. Imperfect warming and drying of the houses by fire during the winter months.
10. The wearing of insufficient clothing during the the winter months.

A volume might be written on the preceding causes, but our object is clearly to present practical observations which may prove of benefit to those interested.

Owing to the peculiar topography and geographical situation of New Orleans, the soil is saturated with moisture, and the atmosphere is habitually near the dew point. The *old* city (second district, bound by Esplanade and Rampart streets), and large portions of the third, fourth and first districts, are compactly built with brick, and the sudden changes of the fall, winter and spring are frequently manifested by the precipitation of moisture on the cold walls in the form of streams of water. Dampness checks the cutaneous perspiration; it abstracts the normal heat and electricity from the body; it receives and holds the noxious exhalations from the human body, and from all other sources, and it promotes the development and rapid multiplication of low or simple forms of vegetable and animal life, and more especially of micrococci bacilli, bacteria, and fungi.

In many instances no attention has been paid to the proper filling in, with sand and gravel, of building lots, and stagnant water frequently stands under the houses, and is a potent source of disease. Whole blocks can be pointed out in the heart of this great city in which there is no proper ventilation, and in which the lowest floor rests directly upon the damp earth. Houses, churches, school-houses, stores, and all buildings inhabited or occupied by human beings, should be thoroughly ventilated laterally and perpendicularly. As far as practicable the respired air should be diluted and as far as possible robbed of its noxious properties. The air should circulate freely under the lower floor of every house, and should be admitted by ventilation in the front and rear of each room, and if possible on all sides; and a system of ventilation should be so arranged as to allow of the escape of the foul air of the sleeping apartment directly up through the roof. Each room should have a direct supply of fresh air from the outside. *If people would send for the carpenter and properly ventilate their houses, they would not so often need his services in the grave-yard.*

The effect of imperfect ventilation and close confinement and crowding, with insufficient food, is fully illustrated by the frequent occurrence of phthisis pulmonalis among females who are compelled to live by the needle and sewing machine, and who occupy small unventilated houses resting upon the ground.

Warm clothing, regular exercise in the open air, nutritious food, and such thorough ventilation as shall at all times secure pure air in the store, work-shop, sitting room and bed room, are the great means of preventing the development of phthisis pulmonalis. War destroys its thousands, but phthisis claims its tens of thousands.

The improvidence, ignorance and avarice of mankind, as manifested in the neglect of sanitary laws, in the construction and conduct of dwelling houses, stores, factories, school houses, and churches, are more destructive to human life than yellow fever and all other pestilences.

TREATMENT OF PHTHISIS.

In hospital practice amongst charity patients, the results of treatment will depend upon the stage of the disease; the extent to which the lungs and other organs have been involved by the tubercular deposits; the constitution of the patient; the habits and condition of the patient before the onset of the disease; the cause of the disease, the absence or existence of *heredity*. The experience of the author is to the effect that good results may be achieved in almost all cases, and that the progress of the disease may frequently be temporarily arrested.

The remedies of greatest value appear to be cod-liver oil, phosphates, hypophosphates of zinc, iron, sodium, potassium, strychnia, and the bitter tonics.

Throughout the entire term of hospital service cod-liver oil maintained its place at the head of the list of the remedies adapted to the treatment of phthisis. The following combination was found useful as a tonic: ℞. Tincture of nux vomica, f ℥iv; syrup of hypophosphates of iron, lime, soda, potassium, f ℥viij; mix; dose, one teaspoonful three times a day.

To allay cough the following formulas were frequently used: ℞. Syrup of morphia (one grain of sulphate of morphia to one fluid ounce of simple syrup), f ℥ij; syrup of squills, f ℥i; syrup of ipecac, f ℥iv; syrup of tolu, f ℥iiss; dose, from one to two fluid drachms when necessary. ℞. Syrup of morphia, f ℥ij; syrup of squills, f ℥i; syrup of prunus Virginiana, f ℥iv; mix; dose, from one to three fluid drachms when necessary.

Alcoholic stimulants administered in a diluted state, with cane sugar, proved beneficial in arresting the waste of tissue.

When good whiskey is diluted with four parts of sweetened water in many cases it acts as a nutriment and anæsthetic, allaying the cough and inducing sleep.

SOUTHERN RETREATS, OR HOSPITALS, FOR THE ACCOMMODATION AND TREATMENT OF CASES OF PHTHISIS PULMONALIS.

The Southern region of Louisiana, on the East bank of the Mississippi, beyond the borders of Lake Pontchartrain, the adjoining *Pine Belt* above the coast of Mississippi, presents a very mild climate, well adapted to the accommodation of persons from all sections of the United States, but more especially from the Northern or Western States, who are suffering with phthisis. The atmosphere of the Gulf, immediately along the borders, is too stimulating to the bronchial mucous membranes in many cases of phthisis pulmonalis; and the Delta of the Mississippi Valley affords too much moisture, and is the seat of too much fog and rain, to afford satisfactory results in the treatment of phthisis.

The belt of country around Covington, and the Abita Springs, across the Lake from New Orleans, is composed chiefly of sand, and is covered with the long-leaf pine. Owing to the porous nature of the soil, no water lies after rains; the atmosphere is comparatively dry, and the balsamic properties of the pine are exhaled.

There are statistics to show that the death rate from phthisis in this Pine Belt of the Florida parishes of Louisiana is lower than that of any other portion of the United States. I have sent many patients suffering with phthisis to this region, and have for many years advocated the founding of retreats or hospitals for the treatment of this disease in this portion of Louisiana.

My colleague, Prof. Payne, of Galveston, Texas, has suggested that convalescents from the Charity Hospital, and especially those suffering with phthisis, might with benefit to the patients and to the institution, be transferred to a hospital located in a healthy region, outside of the limits of the Parish of Orleans. Assistance might be rendered in the support of such an institution by the labor of the patients in cultivating flowers, vegetables and fruits.

GENERAL DISEASES, CONTINUED.

	Cases.	Deaths.
Elephantiasis Græcorum (Oriental leprosy)	5	3
Elephantiasis Arabum	3	
Zaros (African)	1	
Scrofula	14	3
Scurvy	7	
Purpura hæmorrhagia	8	
Total	38	6
Medullary cancer	2	
Epithelial cancer	1	
Osteoid cancer	2	2
Schirrus cancer	2	
Cancer of the uterus	1	
Cancer of the stomach	1	1
Cancer of the pylorus and pancreas	1	1
Cancer of the liver	2	2
Cancer of the testicle and mesenteric glands	1	1
Cancer of the rectum	1	
Cancer of the tongue	1	1
Cancer of the penis	1	
Total	16	8
Erysipelas	19	2
Acute articular rheumatism	152	2
Chronic articular rheumatism	157	2
Muscular rheumatism	17	
Gonorrhœal rheumatism	6	
Syphilitic rheumatism	30	
Gout (chronic)	1	
Primary syphilis	34	
Secondary syphilis	120	2
Total	536	8

Grand total general diseases, including all the forms of malarial and other fevers, phthisis and other constitutional diseases: Cases, 4,034; deaths, 276. Per cent. of deaths, in general diseases, 6.83; rates of deaths in 1,000 cases general diseases, 68.3. One death from general diseases in 14.6 cases.

It is evident from the preceding figures that whilst the malarial (paroxysmal fevers) numbered 2,885 cases out of a total of 4,037 cases of constitutional diseases, or about 71.2 per cent.; on the other hand, the mortality occasioned by malarial fevers was only 88 out of 276 deaths from all general diseases. The mortality occasioned by the various forms of malarial fever was only about 31 per cent. of the mortality occasioned by all general diseases, including the former.

We will now examine the numerical relations of

the local diseases treated by the author in the Charity Hospital of New Orleans, during the periods already specified.

LOCAL DISEASES.

Diseases of the Nervous System.

	Cases.	Deaths.
Meningitis	8	2
Cerebritis	2	2
Softening of the brain	7	3
Abscess of the brain	2	2
Syphilitic tumor of base of brain	1	1
Apoplexy (cerebral hæmorrhage)	15	11
Cerebro-spinal sclerosis	1	1
Spinal meningitis	9	2
Myelitis	1	1
Atrophy of spinal cord	2	1
Sclerosis of spinal cord	6	
Hæmiplegia	59	12
Paraplegia	34	4
Paralysis caused by fear	8	1
Paralysis agitans	5	
Epilepsy	40	2
Locomotor ataxia	6	
Sciatica	8	
Facial neuralgia	27	
Chorea	1	
Dementia	13	
Dementia and general paralysis	6	2
Insanity	7	1
Tetanus	1	
Sunstroke (thermic disease)	3	1
Alcoholism (delirium tremens)	170	9
Total diseases of the nervous system	442	58

Many of the cases of epilepsy were traced to the habit of self-abuse, and four of the cases of dementia and general paralysis were traced to the same cause. Without doubt a considerably larger number of these and other nervous disorders were induced originally by self-abuse and excessive indulgence of the sexual appetite; but the absolute reticence of many patients with regard to their personal history in such matters precludes the demonstration of the cause beyond all doubt. Six cases of epilepsy were referable to blows inflicted upon the crania during health, causing fractures and depressions of the bones.

Many of the cases of cerebro-spinal disease, dementia, general paralysis, paraplegia and hæmiplegia, appeared to have their origin in the abuse of alcoholic stimulants.

Diseases of the Circulatory System.

Heart; valve disease; mitral	30	11
Heart; valve disease; tricuspid	1	
Aortic pulmonary and tricuspid valves	8	3
Fibrinous concretion in heart	1	1
Hypertrophy and dilatation of heart	1	
Hypertrophy, dilatation and valvular disease	20	10
Fatty degeneration	4	3
Palpitation and irregular action	2	
Pericarditis	1	
Aneurism of ascending aorta	10	2
Fatty and calcareous degeneration of heart and arteries	1	1
Aneurism of arch of aorta	5	3
Aneurism of carotid	1	
Aneurism of descending aorta	1	
Aneurism of abdominal aorta	4	1
Valvular disease of heart and aneurism	1	1
Total diseases of heart and blood-vessels	91	36

Per cent. of deaths in diseases of heart and blood-vessels, 3.9.

Diseases of the Absorbent System.

	Cases.	Deaths.
Non-Syphilitic bubo	1	
Scrofulous disease of glands	1	
Disease of renal capsules (Addison's disease)	1	1
Total diseases of absorbent system	3	1

Diseases of the Respiratory System.

Bronchitis	160	4
Vesicular emphysema	1	
Asthma	49	3
Gangrene of lungs	1	1
Pneumonia	152	32
Pneumonia (double)	41	21
Pleuro-pneumonia	16	6
Pleuro-pneumonia (double) supervening on malarial fever	4	4
Pleuro-pneumonia supervening on phthisis	2	2
Abscess of lungs	2	1
Laryngitis, acute	7	2
Pleuritis	47	3
Hydrothorax	6	1
Pneumo-thorax	3	1
Total diseases of respiratory organs	491	81

Per cent. of diseases of respiratory organs, 16.7.

Diseases of the Alimentary Canal.

Inflammation of fauces and palate	1	
Ptyalism	1	
Tonsillitis	6	
Pharyngitis	3	
Trachitis	4	
Dyspepsia	4	
Gastritis	10	
Gastralgia	1	
Gastro-enteritis and jaundice	2	
Gastro-enteritis	5	
Cholera morbus	10	
Enteritis	7	
Dysentery, acute	122	17
Dysentery, chronic	90	42
Diarrhœa, acute	160	7
Diarrhœa, chronic	125	25
Dysentery and diarrhœa, chronic	131	30
Constipation	5	
Hernia	6	
Obstruction of bowels	2	
Hæmorrhoids	8	
Fistula in ano	2	
Prolapsus of anus	1	
Abscess of rectum	1	
Cancer of rectum	1	
Peritonits	1	
Total diseases of alimentary canal	709	121

Per cent. of deaths, diseases of alimentary canal, 17.3.

It will be observed that in the class of diseases of the alimentary canal, acute diarrhœa and acute dysentery occasioned 282 cases, with 24 deaths; and chronic diarrhœa and dysentery 346 cases and 9 deaths; the mortality being relatively greater in the chronic than in the acute forms of these diseases.

Many of the cases were brought in wretched condition from the swamps along the railroads and from the rice-fields above and below New Orleans on the banks of the Mississippi and its tributaries, or were complicated by the action of the malarial poison.

Diseases of the Liver.

Hepatitis	24	6
Hepatitis and abscess of liver	12	7

	Cases.	Deaths.
Cirrhosis of liver, with ascites and anasarca of liver	31	21
Adenoma and cirrhosis of liver	1	1
Jaundice	10	
Fatty degeneration of liver	3	
Amyloid degeneration of liver	1	
Hydatids of liver	1	1
Tuberculosis of liver	1	1
Obstruction of common bile duct and jaundice	1	1
Total	85	38

Per cent. of deaths in diseases of the liver, 44.7.

Diseases of the Spleen.

Splenitis	2	
Hypertrophy of spleen	1	
Leucocythæmia	1	1
Total	4	1

The following facts should be noted with reference to the preceding classification of the diseases of the liver and spleen: The cases recorded as jaundice did not represent the number of cases presenting this symptom; for almost every case of yellow fever, and a large number of the various forms of malarial fever, as well as some cases of hepatitis, cirrhosis and pneumonia were jaundiced. Every case of prolonged malarial fever presented more or less hepatic derangement and enlargement of the spleen, but the secondary derangements were included under the head of the original malarious diseases.

Diseases of the Kidneys.

Bright's disease of the kidneys	80	24
Acute nephritis	2	1
Diabetes mellitus	3	1
Diabetes insipidus	2	
Renal calculi	1	
Total	88	26

Per cent. of deaths in diseases of the kidneys, 30.4.

Diseases of Bladder and Male Organs of Generation.

Cystitis	6	
Enlarged prostate	1	
Stricture	9	
Urinary fistula	1	
Vesico-vaginal fistula	1	
Gonorrhœa	25	
Hæmorrhage from urethra	1	
Varicocele	4	
Cancer of the penis	1	
Phymosis	3	
Hydrocele	6	
Orchitis	10	
Syphilitic enlargement and induration of the testicle	2	
Total diseases of the bladder and male organs of generation	70	—

Diseases of Female Organs of Generation.

Gonorrhœa	5	
Prolapsus uteri	2	
Amenorrhœa	1	
Myalitis	3	
Abortion	3	
Vesico-vaginal fistula	1	
Recto-vaginal fistula	2	
Fibrous tumor of uterus	2	1
Cancer of uterus	1	
Total diseases of female organs of generation	20	1

In 1869 I took charge of the female wards during the absence of my friend and colleague, the late Professor Frank Hawthorne, and here the cases of female diseases appear amongst my records.

Diseases of the Organs of Locomotion.

	Cases.	Deaths.
Caries and necrosis of bones	6	
Synovitis	4	
Caries of spine, with curvature	2	
Psoas and lumbar abscesses	3	1
Total	15	1

Diseases of the Cutaneous System.

Urticaria	2	
Psoriasis	5	
Pemphigus	1	
Scabies	5	
Eczema	2	
Total	15	

Diseases of the Eye, Nose and Ear.

Conjunctivitis	1	
Purulent ophthalmia	1	
Gonorrhœal ophthalmia	2	
Scrofulous ophthalmia	1	
Opacity of cornea	3	
Syphilitis iritis	3	
Scrofulous iritis	2	
Cataract	4	
Blindness	6	
Ozæna	1	
Otorhœa	1	
Total	25	

Injuries, Ulcers and Abscesses.

Burns and Scalds	6	
Ulcers	28	1
Amputations of lower extremities for ulcers	3	1
Gangrene of both feet—resulting from exposure to cold during nights in Louisiana Swamp—amputation of both feet	1	
Concussion of brain	6	3
Contusion of head	1	
Contusion of back	5	
Contusion of abdomen	4	
Fractures	5	
Fracture of femur in old age	1	1
Incised wounds	6	
Dislocations	2	
Gunshot wounds	4	
Ear, parotid gland, etc	21	
Abscess of parotid gland and pyæmia	1	1
Abscess of rectum and pyæmia	1	1
Cancrum oris	1	
Total	96	8

Poisons.

Lead poisoning	11	1
Opium habit	7	
Poisoning by carbolic acid and carbonic oxide gases	1	1
Opium poisoning	1	
Poisoning by oxalic acid	1	
Total	21	2

Conditions not Necessarily Associated with Local or General Diseases.

Parturition	16	1
Hypochondriasis	8	
Old age and senile debility—many of the fatal cases were attended with ossification and degeneration of blood vessels and failure of the heart, brain and lungs	65	13
Total	89	14

Parasites.

Tænia solium—tape-worm	11
Total	11

The mode in which I have grouped the different diseases is not free from certain objections. Thus I have classed *alcoholism* (delirium tremens) and *mania a potu* under the head of nervous diseases, whilst the effect of alcohol might with almost equal propriety be classed under the head of poisons. As the habitual use and abuse of alcoholic stimulants leads to fatty degeneration, hepatic derangements, cirrhosis of the liver and kidneys, exhausted nerves and intellectual forces, and other abnormal conditions, it is evident that *alcoholism*, delirium tremens, and *mania a potu* might also with equal propriety be classed with *general diseases*. Nevertheless, as the most prominent symptoms caused by the excessive use of alcohol in patients transferred from the streets and crowded habitations of the poor to the crowded wards of a hospital, are referable to the nervous system, such as wild delirium, sleeplessness, muscular and nervous agitation, it is evident that for all practical purposes those suffering from the effects of alcohol may be classed as in the preceding tabulated statements.

The preceding facts are significant, showing that alcohol does not destroy its victims, in most cases, suddenly, as in the dead sleep of profound intoxication, or in the wild maniacal ravings of delirium tremens. By slow and measured steps, in most cases by inducing cirrhosis of the liver, Bright's disease of the kidneys, anasarca, ascites, rheumatism, rheumatic gout, defected vision, fatty degeneration of the heart, arteries and muscular system, which finally end in paralysis, imbecility and insanity, alcohol encircles its victims in irremediable and everlasting ruin.

Without doubt, *alcohol* occasions a vast amount of disease over the face of this mighty Republic, and carries death, destruction, dishonor and shame into thousands of happy homes. Alcohol is at the bottom of a large proportion of the crimes committed in the United States. Alcohol dethrones reason and poisons the fountains of sentiment and morals, and is even more destructive upon the moral and intellectual nature than upon the physical organism of man.

GENERAL SUMMARY.

	Cases.	Deaths.
General diseases	4,034	276
Diseases of the nervous system	442	59
Diseases of heart and blood vessels	91	36
Diseases of absorbent system	3	1
Diseases of respiratory system	493	82
Diseases of alimentary canal	709	123
Diseases of liver	85	38
Diseases of spleen	4	1
Diseases of kidneys	88	26
Diseases of bladder and male organs	70	
Diseases of female organs of generat'n	20	1
Diseases of organs of locomotion	15	1
Diseases of cutaneous system	15	
Diseases of eye, nose and ear	25	
Injuries, ulcers and abscesses	96	8
Poisons	21	2
Conditions not necessarily associated with local or general diseases	89	14
Parasites	11	
Total	6,311	668

Per cent. of deaths from all causes, 10.4. Ratio of deaths per 1,000, 104. One death in 9.44 cases.

If a comparison be instituted between the rate of mortality in the cases under the immediate care of the author, and the general statistics of the Charity Hospital, we obtain the following data, which we have consolidated at the expense of much time and labor:

During eighteen years preceding the civil war (1842–1861) the total admissions into the Charity Hospital of New Orleans were 207,356; total deaths, 29,614; per cent. of deaths, 14.2.

During the sixten years following the civil war, (1864–1881), total admissions, 96,857; total deaths, 14,104; per cent., 14.5.

Total admissions during thirty-four years, 304,213; total deaths, 43,718; per cent. of deaths in the Charity Hospital of New Orleans during the thirty-four years specified, 14.3.

The greater proportion of the cases of fever and of all other diseases treated by the author in the Charity Hospital during the period specified (1869–1886), were natives of foreign countries and of surrounding States. Many had resided in Louisiana only a short time, not exceeding one year in the United States; whilst many were brought directly to the wards of the hospital from the swamps and rice-fields of the Delta of the Mississippi River within a few months after their arrival from Europe.

Upon a careful examination and classification of statistics of the Charity Hospital of New Orleans during the period of forty years (1836–1876) we find that 310,659 patients were admitted; and of this number 248,011 were foreigners, 55,403 natives of the United States outside of Louisiana, and only 11,671 were natives of Louisiana.

During the entire period of the hospital service of the author, similar relations with reference to nativity existed amongst the patients under his charge and treatment.

Thus, during a term of service extending from October 1, 1884. to April 1, 1885, of a grand total of 547 cases treated by the author in the Charity Hospital, only forty-two were natives of Louisiana, and of them only eighteen were natives of New Orleans, the remaining twenty-four having been born in the various parishes of Louisiana. Of the sixty-three deaths occurring during the period, only two were natives of New Orleans, and the cause of death was the same in both, viz., *phthisis pulmonalis*. Amongst the twenty-four natives of the other parishes of Louisiana four deaths occurred, by the following diseases: Chronic Bright's disease, chronic dysentery, pernicious malarial fever, malarial toxæmia or cachexia of long standing, with enlarged spleen, anæmia and general anasarca.

The natives of Louisiana constituted only 7.6 per cent. of all the cases treated, and the mortality 9.2 per cent. of the deaths from all causes.

During a term of hospital service extending from October 1, 1885, to April 1, 1886, of a grand total of 323 cases of all diseases treated by the author, eleven were natives of New Orleans and sixty of the parishes outside of the limits of the parish of

Orleans. The foreigners and natives of other States of the Union numbered 252.

RELATIVE MORTALITY IN THE WHITE AND NEGRO RACES IN NEW ORLEANS.

The statistics which the author has presented, illustrating the general results of his medical practice in the Charity Hospital, relate almost exclusively to the *white race;* the occasional presence of Chinese, Japanese, Malays, Arabs, and whites tinged with negro blood in his wards, could not afford sufficient material for calculation as far as the diseases and mortality of different races were concerned. Preceding the civil war the number of colored people treated in the Charity Hospital was comparatively small. But since the emancipation of the negro slaves the number of negroes applying annually to be treated in this institution has increased.

It is well known that the colored race form a larger proportion of the population of New Orleans than of any other American city, and at the same time it has been established that the death-rate of the colored population exceeds that of the whites in American cities.

I have prepared the following table, illustrating the mortality of New Orleans for a series of years, giving the death-rate for whites and colored:

MORTALITY OF NEW ORLEANS, LOUISIANA.

Death-rate per 1,000 Inhabitants.

Year.	*White.*	*Colored.*	*Total.*
1845	25.10	22.50	24.32
1847	70.86	37.08	62.03
1849	81.92	62.91	77.44
1850	63.08	52.10	59.38
1852	67.91	43.04	62.90
1853	124.68	48.98	110.09
1856	32.98	35.66	33.89
1857	34.86	38.07	35.49
1858	69.64	80.37	72.70
1859	33.58	86.78	41.53
1860	41.99	52.74	43.51
1861	31.58	37.16	31.87
1863	37.39	59.53	41.35
1864	42.14	81.75	49.86
1865	33.32	60.88	38.09
1866	36.77	65.56	42.52
1867	56.79	47.80	54.69
1868	25.49	38.97	28.60
1869	27.24	44.80	31.75
1870	33.74	52.20	38.61
1871	27.26	42.76	31.32
1872	27.29	41.93	31.17
1873	32.79	51.42	37.73
1874	29.53	43.44	33.75
1875	26.28	40.25	30.00
1876	25.87	42.50	30.31
1877	25.96	40.02	32.11
1878	52.05	30.94	48.81
1879	20.85	37.41	23.95
1880	22.96	34.38	26.01
1881	25.79	38.95	29.31
1882	21.89	39.03	26.45

During the period of thirty-two years embraced in the above table, with the exception of the year 1870, the death-rate amongst the whites was the lowest in 1882.

The average death-rate for the thirty-two years amongst the whites was about 39.6; and for the colored people about 47.1. I observe a marked diminution of the death-rate amongst the whites during the last four years of this table, which ranged from 20.85 to 25.79 per 1,000 white inhabitants per annum.

These figures (1879–1882) will compare favorably with those of cities in which the vast proportion of the inhabitants belong to the white race. Thus, during the same years (namely, 1879, 1880, 1881 and 1882), the death-rate in Boston ranged between 20.38 and 33.53; New York 25.82 to 31.08; Brooklyn, 21.09 to 24.84; Philadelphia, 17.17 to 22.62; Pittsburgh, 19.49 to 27.23; St Louis, 18.01 to 22.07; Chicago, 18.01 to 25.69.

When it is considered that New Orleans receives a vast number of sick whites from all the States tributary to the Mississippi River, in her great and noble Charity Hospital, as I have shown by the statistics recorded in this paper, and also by the elaborate and extended statistics which the author has published as President of the Board of Health of the State of Louisiana 1880, 1881, 1882 and 1883; and when it is still further noted, that the deaths of these strangers and aliens are recorded to the credit of New Orleans, it is evident that the mortality rate amongst her white inhabitants will compare favorably with that of any American city. Of course we exclude from this statement the ravages of foreign pestilence, and more especially Asiatic cholera and yellow fever.

The results of the rigid system of quarantine and of domestic and maritime disinfection and sanitation established and conducted during the four years in which the author held the position of President of the Board of Health of the State of Louisiana (1880, 1881, 1882, 1883), lead us to hope that foreign pestilence may be forever excluded from the Valley of the Mississippi.

156 Washington St., Fourth District, New Orleans, La., May 1, 1886.

MECHANICAL TREATMENT OF RETROVERSION OF THE UTERUS.[1]

BY HENRY T. BYFORD,

PHYSICIAN AND SURGEON TO THE WOMAN'S HOSPITAL OF CHICAGO.

Retroversion of a fully developed uterus, in which there is no flexion, presupposes a displacement of the os and lower end of the cervix forward. Causes of retroversion act by either weakening the natural supports or bringing an abnormal or unusual strain to bear upon them. The mechanical treatment, or that which corrects the displacement while a cure is being accomplished, or attempted, should avoid weakening or interfering with the natural supports.

We may divide the more directly mechanical means usually adopted for correction of such deformity into four kinds.

1. Those which permanently fix the fundus in front of the pelvic axis.

2. Those which draw or fix the os or cervix back of the pelvic axis.

3. Those which place a barrier or obstacle to the forward displacement of the os and cervix.

4. A combination of two or more of these methods.

The fixation of the fundus forward has been done in four principal ways:

1. By the Alexander operation, in shortening the round ligaments. It was suggested by Alquié, recom-

[1] Read before the Chicago Medical Society, July 6, 1886.

mended by Aran, experimented upon on the cadaver by W. A. Freund, and successfully performed and established as a therapeutic measure by W. Alexander.

2. The stitching of one (or both) round ligaments to the abdominal walls, as has been done by William H. Byford while performing laparotomy for another purpose. An examination after two menstrual periods had passed showed that the uterus was still held up by its new attachment.

3. Stitching a broad ligament to the abdominal wall, as has been successfully done by Kœberlé and Schrœder during laparotomy for another pathological condition. The uterus in Kœberlé's case was found upon examination by Carl Braun, after ten years, to have retained its new position.

4. The stitching of the uterus to the abdominal wall, as recommended by Mueller and Lawson Tait, and performed by Skene Keith, Haywood Smith and probably others by an especial laparotomy.[1]

These operations have the common disadvantage of an unnatural fixation of the fundus forwards. Drawing or holding of the cervix back has been accomplished by the hazardous expedient of cauterizing the vagina for the purpose of producing cicatrical contraction behind the cervix, as by Amussat and others, or of causing adhesive inflammation in the posterior cervical and vaginal walls; or by the safer plan of denuding these apposed surfaces and stitching them together, as recommended by W. Lœwenthal and performed by Hunter, of New York, O. E. Herrick, of Michigan, and others.

The objection to such procedure, besides the danger of peritonitis, lies in the fact that either the cervix must be held back rigidly, or the posterior vaginal attachments must become loosened. Emmett thinks that the consequent traction upon the bladder must be a serious objection.

But the most common and available method is by pessaries of the Hodge class, such as the Albert Smith, Thomas, Emmett, Hewitt, Hanks, Nœgerath, Schrœder, Gehrung, etc., which press backwards and upwards behind the cervix, and thus draw it back and drop the fundus forwards. They hang up the cervix, and thus supplement or supplant the posterior suspensory or sacro-uterine ligaments of the uterus. But in doing this they are apt to hold the uterus in a state of forced anteflexion, and weaken or irritate these ligaments; and by stretching the vagina longitudinally to loosen its attachments.

The pessaries with external supports such as Priestly's, Lazarewitsch's, Cutter's, Thomas', Scott's, can often be introduced by the patient, and thus sometimes serve a better purpose than those just mentioned. I have never used a pessary with more satisfaction than occasionally Scott's in case of relaxed vaginal outlet.

H. Marion Sims has recently[2] presented a retroversion stem pessary in which the cervix is pulled back by the intra-uterine stem instead of a post-cervical bar. The bar of a Hodge pessary practically passes under the cervix and affords a hinge-like support to the stem. There are undoubtedly atrophic or imperfectly developed uteri with retroversion for which this instrument will be found preferable to others.

In some cases of small vagina and cervix, the elastic ring of Peaslee, Mayer, or Dumont-Pallier, or an inflated rubber bag or ring, or a hard rubber round or oval ring, may be made to distend the vagina and thus draw the cervix into a less abnormal position. But the majority of them are relics that belong more to history than to practice, which we take out oftener than we introduce, yet which occasionally do some good where others cannot be used. They remind us that no form of pessary can be used for all cases, and reproach us for having no suitable pessary for many cases.

The method of keeping the cervix and os back by placing an obstacle in front of it, acts upon a rational principle, and does not labor under the disadvantage of supplanting, and thus favoring atrophy of natural supports, irritating or pressing upon tender and inflamed tissues behind the cervix, of greatly stretching the vagina, of drawing open lateral lacerations of the cervix, or of holding the uterus in a state of harmful immobility. This may be accomplished by a pessary or by a plastic operation.

Pessaries of this class should keep the cervix so far back that the abdominal pressure will force the fundus forward or, in case the ligaments are utterly relaxed and useless, should hold the cervix so near the hollow of the sacrum that the fundus will, for want of space, be unable to fall back into a permanent state of retroversion. The simplest and least objectionable form is the cotton plug, which is made into a shape resembling a small pool of thread, saturated with glycerine or some other disinfected lubricant, placed transversely in front of the retroposited cervix, and changed every day. After a time the patient may take the plug out at night and have it introduced in the morning. Some patients learn to use them themselves.

A rectal tampon which was recommended by Huguier in 1865, might be made to act efficiently in this way in exceptional cases in which nothing can be retained or tolerated in the vagina, especially if the weakened perineal body were supported at the same time by a perineal pad. A flattened globe of glass, hard rubber or hollow metal of appropriate size, might for want of something better be occasionally used by the patient with comparative comfort and benefit.

Courty's pessary consists of two bars which rest on the pelvic floor, and are joined by a cross bar in front where they rest against the pubes or vaginal entrance. Behind, the bars curve up in front of the cervix, and form a more or less rigid barrier to its forward movement.

Gehrung's[1] instrument has the shape of a very small excessively curved Albert Smith pessary, with the cross bar in front of the cervix. The chief objections to it are that the pressure against the cervix must be constant, and hence, unbearable, to keep either it or the uterus in place, and that the vaginal walls are apt to be held apart.

[1] The methods of these operators, I have not for want of time and opportunity been able to determine.

[2] New York Obstetrical Society, April 6, 1886.

[1] The *anteversion* pessary, called "Gehrung's pessary," is not the one refered to.

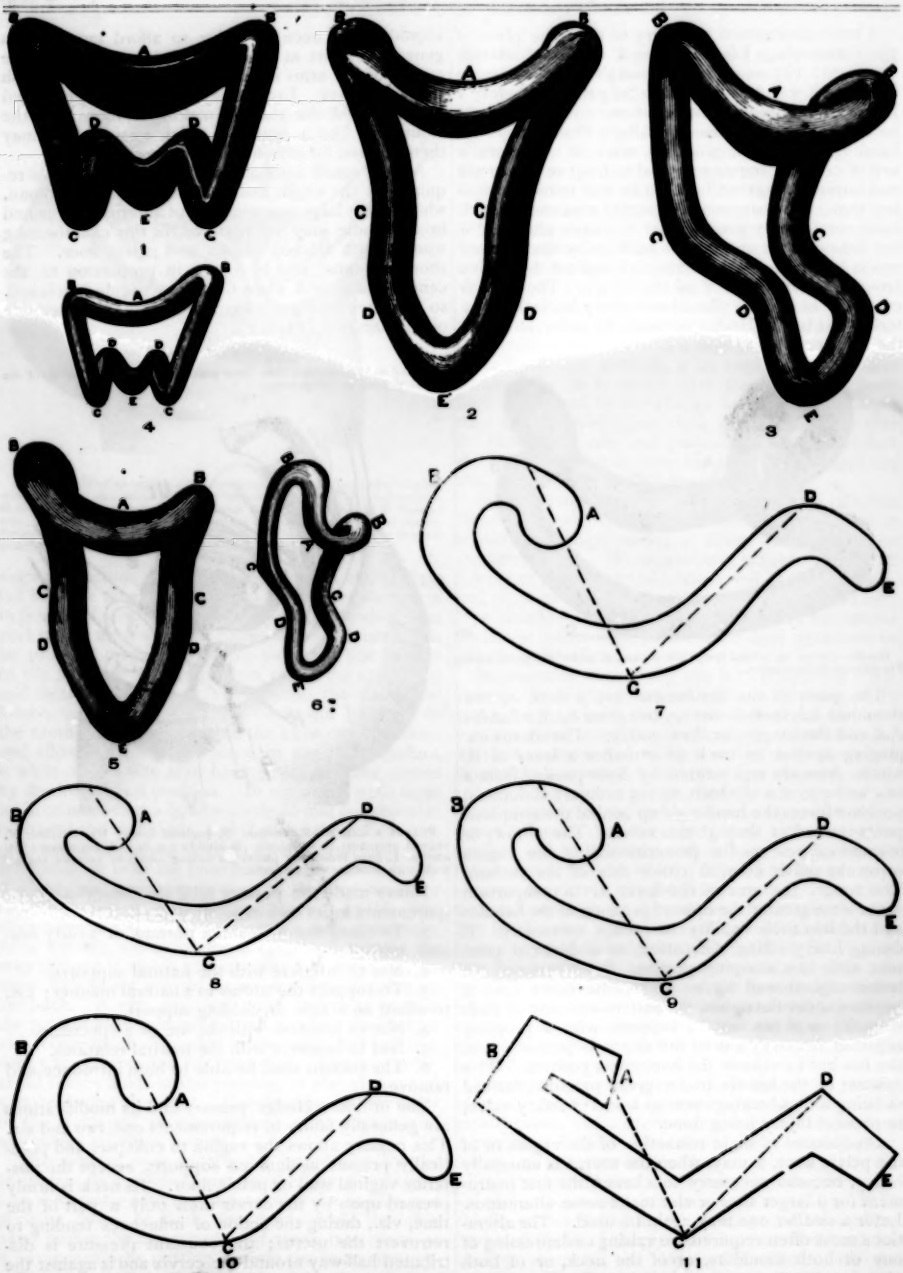
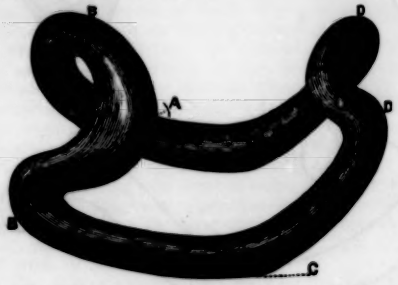


PLATE 1.—a, neck; b, shoulder; c, elbow; d, handle; e, free end; 1, 2, 3, different views of same instrument; 4, 5, 6, modified for lateral displacements; 7, for small vagina; 8, ordinary form; 9, for lax vagina and outlet; 10, for raising heavy uterus from relaxed pelvic floor. 11, schematic.

I have constructed a pessary to take the place of the cotton plugs I formerly used, which I think possesses the virtues of both Courty's and Gehrung's, although it was devised and so far perfected before I had seen or studied either of them. It may almost be made from a Thomas' or Albert Smith shape by bending forward the posterior arms so as to form a sort of crescent running around in front of the cervix and impinging against its anterior and lateral vaginal junction. The uterus settles in this crescent or neck more comfortably than against a cotton plug, and if too heavy for its supports, is held up by the pressure upwards of the neck, or crescent against the vagina around the anterior half of the cervix. The shorter curve of the arms is placed anteriorly instead of posteriorly as in the Hodge patterns, in order to retain the lever action. (Plate 1).



Handle curved up behind symphisis instead of under the pubic arch. For relaxed vaginal outlet.

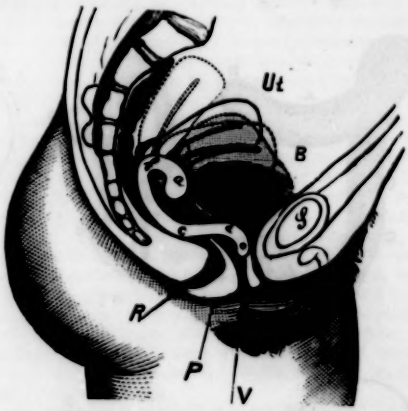
The parts of the instrument are a neck *a*, two shoulders *b*,*b*, two elbows *c*,*c*, two arms *b*,*c*,*d*, a handle *d*,*d*, and the tongue, or, free end, *e*. The uterus impinging against its neck at *a* makes a lever of it, whose arms are represented by lines passing from *a* to *c* and *c* to *d*, and which, during ordinary abdominal pressure forces the handle *d*,*d* up behind the symphisis pubis instead of through the vulva. The elbows or fulcrum *c*,*c*, rest on the posterior wall of the vagina or on the pelvic floor, at either side of the rectum. The longer the arm of the lever *a c* in comparison with *c d* the greater the upward pressure of the handles and the less their liability to escape externally. If during heavy lifting, defecation, or abdominal pressure while in a stooping position, the depressed anterior vaginal wall forces the handle down until it appears under the pubes, the patient has only to push it back; or if (as seldom happens with a properly adjusted pessary) it does not slip into proper place, she has but to assume the knee chest position. This descent of the handle under great pressure, instead of being a disadvantage acts as a sort of safety valve, to prevent injury being done.

On account of slight relaxation of the vagina or of the pelvic floor, it may, when the uterus is unusually heavy, become necessary to change the first instrument for a larger size, or else make some alterations. Later a smaller one may again be used. The alterations most often required are raising or depressing of one or both shoulders, or of the neck, or of both shoulders and neck, in order to afford more or less general support at different points; or to vary the curves of the arms in order to increase or diminish the lever power. Escape may be effectually prevented by taking off the tongue, making it more like the Courty or like a reversed sleigh pessary. It may then be used for retroflexion and prolapse.

A very small instrument with gentle curves is required for the virgin and congenitally sterile woman, while a very large one with abrupt anterior curves and broad handle may be required for the child-bearing woman with relaxed vagina and pelvic floor. The shoulders must also be higher in proportion to the centre of the neck when the upper vagina is relaxed, so that they may get a vaginal bearing on either side of the cervix. (Plate 2).

PESSARY IN PLACE.

Dotted and interrupted lines show possible temporary positions of the uterus allowed by the pessary.



PLATES 2 AND 4.—R, rectum; P, perineal body; Ur, Urethra; V, vaginal entrance; S, symphisis; B, bladder; a, b, c, d, e, pessary; Ut, uterus; L, lines indicating places for uniting cervix or anterior vaginal walls with posterior vaginal walls.

I have made the pessary fulfil the following six requirements in its own class of cases:

1. To place the uterus in a normal, or nearly normal, position.
2. Not to interfere with the natural supports.
3. To support the uterus in a natural manner; *i.e.*, to afford an elastic or yielding support.
4. Not to interfere with the use of a speculum.
5. Not to interfere with the marital relations.
6. The patient shall be able to both introduce and remove it.

The ordinary Hodge pessary and its modifications are generally faulty in requirements one, two and six. This pessary allows the vagina to collapse, and practically presses against no supports, except the posterior vaginal wall or pelvic floor. Its neck is firmly pressed upon by the cervix uteri only a part of the time, viz., during the action of influences tending to retrovert the uterus; the coustant pressure is distributed half-way around the cervix and is against the

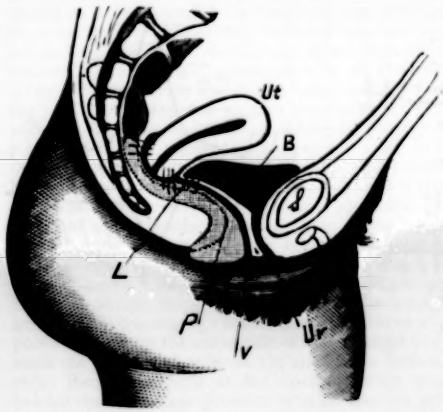


PLATE 4.—Median section after operation for raising posterior vaginal wall, perineum and pelvic floor, as a barrier to the forward displacement of the cervix. The section is supposed to swerve to one side of the rectum, to give a better view of the relations of the pelvic floor to the uterus. Rectum indicated by dotted lines. Places for uniting vaginal or cervical and vaginal walls indicated by lines.

vaginal junction. All other instruments of this class fail because they exert constant pressure on the cervix in front and are thus unscientific and intolerable. But perhaps its most valuable characteristic is that it can be properly introduced by the patient. She has but to slip first one of its shoulders under the symphisis, and then the other over and beyond the depressed fourchette, turn it so that the neck will be towards the urethra, and then assume the knee chest position and allow it to slide into place, or she can introduce it while on her side after having replaced the uterus by the knee chest position. In removing it she turns it a little more than a quarter circle, so that one shoulder is toward the symphisis, and then, as she pulls it out, pries either the upper or lower shoulder out under the symphisis, or over the fourchette, as she finds easier. A slight twist or rotary motion as the first shoulder escapes, so as to miss the urethra will enable her, after a few trials, to remove it easily and painlessly. After wearing it steadily for a couple of months she may remove it nights and introduce it mornings for three, four or six months longer, avoiding sleeping on her back. A very practical point here is to caution the patient after removing it not to allow the bladder to become much distended in the night until all tendency to retroversion has been lost. She may either avoid taking fluids in the evening, or else get up and urinate during the night. Carelessness on this point in the treatment of retroversions often delays, and sometimes prevents, a cure.

The pessary may usually be introduced by the physician, in the lithotomy position by following it into the vagina with the finger under the handle, and pressing down, or back, the cervix while the other hand pushes the instrument and uterus into place, or if unsuccessful by putting her into the knee chest position, and displacing the fundus from the hollow of the sacrum by the finger, when the instrument need only be allowed to follow into place.

Especial contra-indications to this form of pessary are: Tenderness or induration in the vesico-cervical region, decided *retroflexion*, an insufficient projection of the cervix into the vagina, and an unusually short vagina, more particularly the anterior wall. Irritation on either side of the urethra or pressure upon the deep dorsalis clitoridis nerves and vessels are not contra-indications, but call for a greater approximation, separation or downward curving of the arms anteriorly at the handle. All pessaries require some skill in preventing irritations.

Especial indications are: Retroversion with subinvolution after abortion or labor, or with bilateral laceration of the cervix in which the traction of the other forms acts hurtfully, a lax vagina, post cervical tenderness. It it useful after the uterus has been held anteverted by the Hodge instruments for some time and we wish a less rigid support, and one that the patient can use, and gradually lay aside. I find the uterus less apt to retrovert after its prolonged use than after any of the Hodge class.

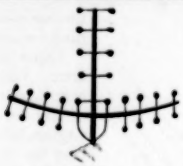
In preparing a subinvoluted uterus with bilateral laceration and eversion, but without retroversion, it is also exceedingly useful in lifting the cervix from the pelvic floor. When properly adjusted it acts as a support to the everted labia us well as to the uterus, and often causes the ulceration to quickly fade out. One shoulder may be enlarged or raised for lateral flexion or inclination, provided no rigid ligaments or adhesions interfere.

As pessaries whose only aim is to relieve the retroversion, the Hodge forms will perhaps answer in more cases, for they hold the uterus anteverted, but as a pessary which interferes the least in most cases for which it answers, and which is suited to its own class beter than any other, I find this one of great value.

I hope that it will not be tried by any one for all cases of retroversion, and condemned because of frequent failures. For instance, I have a case of retroversion and anteflexion with a long and flabby anterior vaginal wall, in which I failed with this pessary, because the cervix slipped down under the neck if the neck was high, or slipped over it if it was too low. Yet in this case a thicker neck would undoubtedly have remedied the defect. The Albert Smith pessary had been tried twice before, and was not tolerated. The most common of the contra-indications which I have met are the retroflexions which so often co-exist with retroversions. For these cases the bar should be behind the uterus or the Harry Sims form be used, or my pessary combined with a stem.

Among plastic operations I have found the raising up of the recto-vaginal promontory and perineum of great benefit, and sometimes curative. This makes it necessary for the womb to rise in the pelvis before the os can get forward, and thus places a barrier before the cervix, and also tends, by fixing the vaginal walls, to correct its excessive mobility. It is chiefly accomplished by shortening the relaxed or retracted fibres of the levator ani muscles, and including some of the connective tissue with the stitches. The form of denudation must vary with

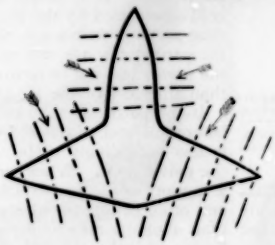
1.



1 a.

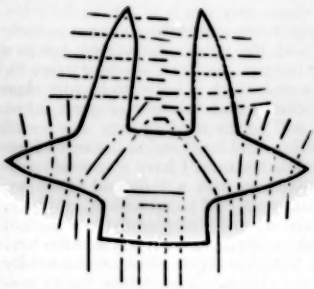
2 b.

2.

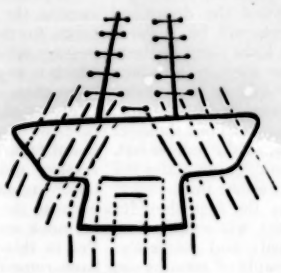


3.

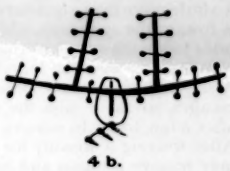
3a.



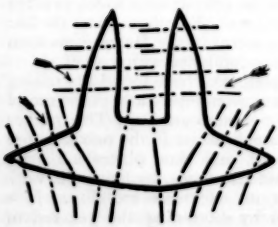
4.



4 a.

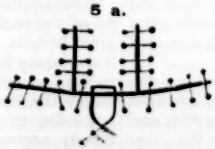


4 b.

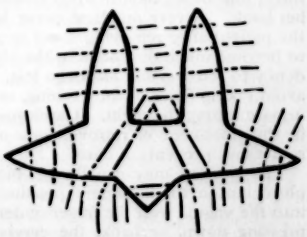


5.

5 a.



6 a.



6.

PLATE 3.—1. Complete figure, with central triangle. 1 a. United. 2. With small triangle in vulva, for raising fourchette. 2 a. United. 3. Without narrowing vulva. 3 a. United. 4. Complete figure, with lateral strips posteriorly. 4 a. Posterior strips united. 4 b. United. 5. Without narrowing the vulva. 5 a. United. 6. Triangular notch for raising the fourchette, added. 6 a. United. Arrows show the main directions of muscular fibres. Dotted lines show where the stitches dip into the tissues.

each case. That which I have found most successful is a transverse strip removed just inside of the fourchette or carunculæ, between one and two inches long, and from one quarter to an inch wide, crossed by a triangle whose base is at the posterior commissure, or, if that had been destroyed at the junction of skin and mucous membrane or cicatricial surface externally, whose sides pass through or include the lower carunculæ, and whose apex is in the median line of the posterior vaginal wall beyond the introitus (Plate 3). An imperfect star is thus produced which contains considerable denuded surface, but whose points or angles, upon being sewed up, will unite ends of muscular fibres without much traction upon other surrounding tissues or displacement of parts. The main stitch, introduced through the right labium majus at the base of the triangle and brought out through the mucous membrane at a point near where the same side of the triangle intersects the posterior border of the transverse denuded strip, then introduced at the corresponding point behind the transverse denuded strip on the left side, and brought out through the left labium at the base of the triangle, will draw the star together in the form of a cross, and indicate what edges are to be stitched together. This main stitch should not be twisted until after the vaginal stitches.

The triangle will, of course, be divided in the centre as the star is pulled together, forming two long right-angled triangles whose shorter legs form the restored cutaneous raphe of the perineum as they meet in the median line. Their hypothenuses coming together in the median line, in the vagina form one side of the cross; the united transverse strip forms the other side. When the patient has not borne children the perineum is seldom greatly relaxed externally and the vulval wedge may be omitted, so that the base of the triangle will be upon the posterior border of the transverse denudation. A small neck or minute triangle may be taken from the fourchette, whose apex is at the posterior commissure, and whose base is at the anterior edge of the transverse strip, to better raise the sagging fourchette. Or if the fourchette be already high, the point at either end of the transverse strip may be placed so that when the triangle projecting into the vagina is closed both sides of the transverse strip will be of equal length and be easily united. Broad strips must, of course, not be taken from the vagina of those who may afterward bear children; but, on the other hand, the triangle should be made broad and long and the transverse strip wide in operating upon those with rectocele or who have passed the menopause, in whom there is often great relaxation, destruction or retraction of tissue.

When the *levator ani* has been torn laterally, or when the fibres which pass under and behind the rectum have become relaxed, it will be better, instead of removing the apex of the triangle in the median line, to remove a strip on either side of the rectum, something like those removed in Freund's operation, and thus draw up deeper fibres of the levator ani. They may be removed and sewed up immediately, *i. e.*, before the rest of the figure, as Martin does in his "*Elytrorrhaphia duplex lateralis*," and may go with all the varieties of the anterior denudations mentioned.

Since becoming accustomed to these forms of denudation I have found it also more convenient to denude the apex of the triangle first and sew it up before denuding the rest of the figure, thus saving the loss of considerable blood. The objection to this consists in the difficulty in knowing, in the beginning, how far up the vagina to carry the denudation.

The tranverse denudation is for shortening or reattaching the fibres of the levator ani which pass from the pubic rami forward to the perineal body and lift that body, while the antero-posterior denudations shorten or raise those that pass more directly towards the median line under the vagina and rectum, and thus lift the pelvic floor and posterior vaginal wall (Plate 4). We thus produce the greatest possible effect in raising and strengthening the parts with the least possible loss of tissue. The uniting of separated fascia and fixation of the vagina to its connective tissue is attained at the same time that the muscles are shortened. The transverse strip not only raises the perineum but attaches it to the pelvic floor, on either side of the rectum. The stitches must be passed deep into the sides or edges of the denuded figures, but should not include their middle sections, since that would bind down instead of raising up the parts. When the parts have been previously injured, and are traversed by cicatrices, the form of denudation must, of course, be modified to suit the case, viz.: to remove the cicatrices and restore the injured tissues to their natural relations. The operation should be suited to the particular case, and not the case suited to a particular operation. The old notions of building a pyramid which never existed; of constructing a firm triangle in the median line, where a firm triangle must be a pathological condition; of projecting a huge rigid cicatrix between the elastic walls of the rectum and vagina, to run the risk of being gradually melted away by time and traction; or of cutting away, instead of replacing, prolapsed masses, are the crude methods of an age of transition, and continue to live, not as useful remedies, only for want of something better.

If the anterior wall of the vagina be much loosened anterior elytrorrhaphy should also be performed as an important, if not necessary, part of the cure.

The patient, after all plastic operations for retroversion, should be kept in bed, but not be allowed to lie on the back for two weeks. It goes without saying that should such plastic operations be undertaken indiscriminately, failure must be the result. The main part of the cure must be made before this nearly mechanical part, viz.: the restoration of natural checks upon the motions, and hindrances to the falling over backwards, of the womb.

To the criticism that I am producing an unnatural state of things by thus elevating the perineum and recto-vaginal promontory, I must answer that I have seen many well developed patients in whom the promontory and portions of the perineum were naturally thus elevated without inconvenience either before or after marriage, and that I am imitating

nature by taking the perinea of such women as models for the operation.

The anterior vaginal or cervical walls may be stitched to the posterior vaginal walls, as a preliminary or first step in performing the above described operation, if the case be unusually unpromising or complicated, and the patient be beyond childbearing.

The denudations should be made where the walls come together after the uterus has been anteverted and the cervix pushed well back, and need not be as extensive as in the Le Fort operation for prolapse. Occlusion of the vaginal canal must, of course, be avoided.

This brings us to the combination methods. The Alexander operation is nearly always combined with support by a pessary for a few weeks or months. It should often be preceded by a plastic operation either for raising or restoring the perineum and recto-vaginal promontory. Other combinations may be devised, some fanciful and some practical. The posterior cervical and vaginal surfaces may be united and a Harry Sims or Gehrung pessary be used to hold the uterus in place until the union is firm and the tendency to retroversion diminished. The abdominal section operations may be supplemented by plastic operations or pessaries. Both walls of the cervix may be stitched to the posterior vaginal wall, before and behind, or the cervix may be stitched posteriorly and laterally to the vagina.

The Fitch, Studley, Schultze's figure eight, and sleigh pessaries, the Hurd, Fowler, Fritsch and Woodward patterns, Martin's eccentric ring, cotton plugs used as recommended by Thomas, etc., are more or less perfect examples of combined traction behind and support in front. They are indicated when the upper surroundings and supports of the uterus are tender, and motion of the organ is to be limited by a firm hold upon the cervix.

In conclusion it must be said that such mechanical treatment as a routine and sole remedy for retroversion is only exceptionally curative, since the original cause and its accompanying or resulting pathological conditions, if still present, tend to break down all barriers and tear loose all attachments.

MEDICAL PROGRESS.

ALBUMINURIA DEVELOPED EXPERIMENTALLY IN MAN.—SCHREIBER has studied in man the effects produced by compression of the thorax, or of a portion of that cavity, the pressure being exerted by means of cushions applied to the anterior and posterior walls of the chest, and regulated by screws. Among twenty-six people he found twenty in whom the compression developed a temporary albuminuria, or increased a preëxisting albuminuria. In a general way the degree of albuminuria varied with the duration of the compression, while some experiments showed that the daily quantity of urine was slightly diminished under the influence of compression. Most frequently the reaction of the urine was acid or neutral, rarely alkaline. Microscopic examination was made in only a small number of cases, and once a few hyaline casts, and once a few red blood corpuscles, were found. The albuminuria is due to the presence of serum-albumen and globulin, and peptones are also present. Its duration was one or several hours, all that was needed to prolong it being a repetition of the compression several times in the course of the day. Schreiber does not consider this albuminuria due to dyspnœa. He believes that its causes are: The diminution of the difference which normally exists between the pressure in the capillaries of the alveoli of the lungs and in the left ventricle; the diminution in the calibre of the pulmonary vessels; the diminution of the extent of the respiratory excursions. From these there results a stasis in the pulmonary circulation, which is rapidly propagated into the vascular network of the kidneys, and hence the filtration of albumen. Whether this filtration occurs in the Malpighian corpuscles, or in the convoluted tubules, he has not yet determined.

In a second memoir M. Schreiber states that in boys of 11 to 15 years thoracic compression for half a minute sufficed in eight out of ten cases to provoke albuminuria (⅓ to ½ per cent.), of which, in general, there is no trace at the end of an hour. In their case he found neither peptones nor serum-albuminose in the urine, but only serum-albumen and globulin. The ophthalmoscope showed that the albuminuria was accompanied by no modification of the size or of the color of the vessels in the fundus of the eye.—*Revue des Sci. Méd.*, Jan., 1886; *Glasgow Med. Journ.*, May, 1886.

BROMIDIA.—In the April number of the *Edinburgh Medical Journal* J. LINDSAY PORTEOUS, M.D., F.R.C.S., M.R.C.P.Ed., says: "Of late there has been a great influx of new drugs, some of great value, others of little or no use. Where a medical man has an extensive practice, consisting of rural and urban patients, he has ample opportunity of testing the effects of drugs, as the varieties of disease that come under his notice are great; and although his means of watching the actions of drugs are not so good as in hospital practice, yet a good deal can be done if he cares to take a little trouble to 'take notes.' The following is one which has been used for some time by my colleague (Dr. Proudfoot) and myself, and I give the results: About eighteen months ago a friend of mine from America told me of the wonderful effects of a medicine, much used in the States, called *bromidia*. According to the makers, it is composed of chloral hydrate, 15 gr; cannabis indica, ⅛ gr.; and extract of hyoscyamus, ⅛ gr. I obtained some, have ordered it regularly for over a year, and have found it excellent in the pain of rheumatism, pneumonia, and cancer; also in the sleeplessness of scarlatina and alcoholism. It has never failed me in procuring sleep, without the disagreeable dreams and after-effects of opium. The dose is ℥ss to ℥j every hour till sleep is procured. I have also found it of much service in cases of tonsillitis, used as a gargle with glycerin and carbolic acid."—*N. Y. Medical Journal.*

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY.

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE.....$5.00
SINGLE COPIES.....10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 63 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, AUGUST 7, 1886.

ARE OUR OBSTETRICAL PRINCIPLES UNSCIENTIFIC?

It is not infrequent that we read papers based on twenty or twenty-five cases, and even less, in which not only are legitimate conclusions drawn, but in which also something of real value is added to our stock of knowledge. But it must be admitted that there is a wide difference between seeing facts and drawing proper conclusions from them—between observation and generalization. It must also be admitted that one who has a moderate, or even unusual, degree of success in practice should not jump to the conclusion that all those who differ with him both in practice and theory are wrong, and that their practice and theory are unscientific. Yet the literature of science is full of such erroneous deductions.

In some recent numbers of *New York Medical Journal*, is an article by DR. HIRAM CORSON, of Conshohocken, Pa., entitled "The Statistics of Three Thousand and Thirty-six cases of Labor," which was read for the author by Dr. Goodell before the Obstetrical Society of Philadelphia, on April 1, 1886. With such an experience it would be supposed that the author would at least be able to draw certain conclusions which would be of positive value to the young obstetrician, and which would be interesting, if not new, to the teachers of this branch of medicine. Unfortunately the paper is not logically sequential, nor is it rhetorically connected, and for these reasons it is sometimes difficult to follow the thread of the argument. But anyone may follow it sufficiently close to ascertain (?) that while in other branches of medicine marked progress has been made in the past fifty years, we have advanced backwards (so to speak) in obstetrics. We learn that Credé method of treating the third stage of labor, the teachings as to the value of antiseptics in midwifery, of the treatment of post-partum hæmorrhage, puerperal eclampsia, and the usually acknowledged principles regarding the use of the obstetrical forceps, are not only wrong but absurd, and that the teachers of obstetrics, especially those who have charge of large lying-in hospitals and who write and teach most, are misleading the profession; and we are left to infer that parturition is always the same physiological process, whether the patient be a strong country woman or a delicate and often badly nourished resident of a city.

"Are antiseptic solutions, when thrown into the vagina and uterus, safe?" Such is the question which the author asks, and to which he replies: "I do not know." It is then proper to inquire why he should have taken the trouble to discuss antiseptics to the length of two pages and a half. He tells us that he has never used them in his three thousand and thirty-six cases, and yet, after taking the most extreme views of the advocates and opponents of antiseptic midwifery, he hastens to the conclusion that it (and by it he understands the use of a *one to twenty* solution of carbolic acid!) is dangerous. He assumes a widespread belief on the part of teachers and obstetricians that there is an absolute necessity to practise the rigid rules looking to a *speedy* termination of every stage of labor by *forcible* means; and in view of this assumed belief he asks: Is labor a natural process? To this we may reply with another question: If labor be the natural process which you assume, why is it necessary to call in a physician at all? And we may also ask: Are human beings to-day natural? Is not our whole life, in civilized countries, artificial? "It appears to me that many persons who report the doings of foreign hospitals and urge their adoption here, and know little of its danger, assume a great responsibility, indeed, sometimes imperil the health, if not the lives of those on whom such measures are practised," says Dr. Corson. Yet we have just seen that he has never used these measures which he decries, and which he clearly does not understand. Had he carefully read the statistics of the Rotunda Hospital, and of many other hospitals, and had he seen the article by Dohrn giving the statistics of forty-three public maternity hospitals in Germany, we doubt if he would have written such unmodified sentences.

The precise object of Dr. Corson's semi-polemic against the forceps is not clear. He tells us that he used forceps thirty-one times, though he does not say under what conditions or indications he used them. It was a few years ago that he learned that forceps

were being used more frequently than "twenty years ago, and that this was done in the early part of labor, not because Nature was inadequate to the work, but because the physician had never hurt *himself* by using the instruments," etc. It may be remarked that the usual indications are cases in which the ordinary forces are insufficient to overcome the obstacles to delivery; and cases in which speedy delivery is demanded in the interest of either the mother or child, or both. As regards the imaginary misuse of this instrument, we would recommend a careful reading of the third edition of Emmet's "Principles and Practice of Gynecology," in which the opponent of the instrument will find much to think of. That an unskilled person may do injury with it is not to be questioned; but the same is true of the catheter. And we would quote the following from Lusk's masterly work: "It will be seen that forceps is not alone indicated in the presence of perils fully developed, but is of still greater service as a prophylactic against the dangers of an unruly second stage." It is not wise in the exuberance of sarcasm to make unscientific statements: if our author has learned that forceps are used in the early part of labor (by which he probably means their use at the brim of the pelvis) because the physician had never hurt himself, or because he had another engagement, he has received instruction from a very unwise teacher.

The section on Credé's method of expressing the placenta reads as though it were intended for the exaggeration of pleasantry, and is none the less amusing even if we know that it was not so intended. So far as we have been able to discover the learned promulgator of this method of placental expression says nothing about "pouncing" upon the woman and pressing the womb to the bottom of the pelvis, as Dr. Corson would have us believe, nor does he advance the rather original idea that the hollow of the hand can make a dent in the uterus through the abdominal walls, and thus *push out* the placenta. It is possible to carry out this method to the letter without "pushing the womb down to the very perinæum." Those who are conversant with the method know that Credé lays very great stress on the *avoidance* of violence in the practice of his method. Where, then, did Dr. Corson get his ideas of the method? Should he care to inform himself fully on this subject we would call his attention to an article in the April, 1885, number of the *American Journal of Obstetrics*, in which Dr. Baruch very clearly points out the mistaken ideas as to this method. To the untaught teachers of modern midwifery it seems to have certain advantages over waiting half an hour for a quarter of a grain of morphine (internally) to act in a case of hour-glass contraction.

Before the advent of the faith-cure it would have been difficult to fully understand how the imagination of a parturient woman could prevent or suppress *post-partum* hæmorrhage; and it is almost as difficult to understand now. Perhaps, however, it is because few physicians have the power of exercising that effect on the mind which, transmitted to the blood-vessels, will cause a contraction of the vascular walls, and thus a cessation of hæmorrhage. Be this as it may, very many practitioners of obstetrics, even before they have delivered three *hundred* women, do encounter cases of serious and alarming hæmorrhage, controllable neither by laying the hand on the abdomen, giving ergot, nor by stimulation of the imagination and excitation of faith. But here again, we are told that Dr. Corson has never had a case of alarming hæmorrhage in his practice; so that we may well inquire if a "confident, assuring manner in the physician" would be so potent if one did occur in his practice?.

If the author's success in the treatment of puerperal eclampsia has been somewhat phenomenal, his ideas as to its pathology may certainly be considered unique. Temporarily accepting the uræmic theory, and supposing that there is a certain amount of urea in the blood which is poisonous, he would resort to venesection, and "remove with the blood so much of the urea that the remainder could not exercise a toxic effect sufficient to produce convulsions." Among his three thousand and more cases he had only ten cases of puerperal convulsions, all of which recovered. The treatment which he recommends for puerperal eclampsia is that upon which a small book was written about three years ago, by Dr. Ezra Mechener, of Pennsylvania—free venesection; to which Dr. Corson adds the pouring of cold water over the head, and the use of morphine internally. While there can be no doubt that venesection is positively indicated in some cases of puerperal eclampsia, we fear that one who resorts to it too frequently is possibly unacquainted with the use of morphine hypodermatically, especially when he uses this drug internally. It is to be questioned if modern teachers, however Teutonic they may be, will agree with him in saying: Suppose it to be true that a certain amount of urea in the blood is poisonous, venesection would then be my remedy. Puerperal fever and septicæmic fever he has never seen, and he remarks that if puerperal fever is a disease "different from peritonitis I know nothing of it."

It is with sincere regret that we have found it

necessary to notice this somewhat remarkable paper at such length? but when it is taken into consideration that it was read before one of the most prominent obstetrical societies in the country without a remonstrance on the part of the members, that it has been published in a prominent medical journal, will go abroad, and may be accepted in Europe as a typical American paper, we feel it our duty to enter a protest. What, for example, will be Credés idea of American obstetrics and obstetricians should he chance to read the description of his method of placental expression? We can only hope that the paper will escape the notice of such men as Carl Braun, Tarnier, Duncan, Felsenreich, Schauta, Pajot, Berry Hart, Playfair, Lombe Atthill, Champneys, and one or two hundred other obstetricians.

Since writing the above we have found in the *New York Medical Monthly* of July, 1886, a paper by DR. H. C. COE, of New York, in which he has taken the same ground as the foregoing. We are glad to see that the attention of a scientific obstetrician and pathologist has been drawn to the paper, and it still further pleases us that we have the endorsement of Dr. Coe. He concludes his paper as follows: "We are happy to say that, so far as our inquiries have extended, Dr. Corson's opinions are *not* those of the men who endeavor to keep abreast of modern thought. Unfortunately, foreign readers may not understand this, and thus the profession as a whole will be charged with holding views which do small credit to our present enlightenment."

NEWSPAPER REMEDIES AND THE PUBLIC.

About a week ago a newspaper in this city published a sensational account of the alleged marvelous results of the treatment of diphtheria with spirits of turpentine. The dose for adults was given as a tablespoonful, and for children a teaspoonful, to be repeated several times during the day. That article has borne its legitimate fruit. One child has been placed in imminent danger of its life from the action of the turpentine on the kidneys, and an old woman has been made sick enough to regret she took the advice of the paper. There was no diphtheria in either case, though such was the diagnosis of an officious ignoramus, and turpentine was used solely on the recommendation of the newspaper. The article in question was given a prominent place in the paper, and one or two days afterwards the same paper contained the statement of a druggist that dangerous results might follow the use of turpentine; but this correction was placed in an out-of-the-way portion of the paper, and no prominence given to the fact.

This is not the first time that innocent and ignorant people have suffered from a misplaced confidence in the stupidity of newspapers. It is very common for papers to give marvelous accounts of cures effected by improbable and dangerous methods of treatment, without pointing out that the methods are dangerous, and proving the assertions by foolish letters which assure the reader that the doctors were mistaken in the cases, and finally gave the patients up. The legitimate sphere of a newspaper is to give the news, revised and "doctored" to suit the varying tastes of their readers, and to print scandals which are unfit to go into the homes of decent people. But while improving the morals of the community they have no right to endanger the health of any one, for by doing this they interfere with the quacks who contribute so largely to their support. Simply as a matter of business, therefore, they should endeavor to sin no more in this manner. Could the person who clipped that article have been made to take all the turpentine swallowed by the woman and child he would probably not be in such haste to give medical advice again. It was an offense against public health, though unfortunately it cannot be reached by the law.

The average reader places a great deal of confidence in the newspaper; the more so when his education is practically limited to an ability to read. And the average man is by no means chary of taking all manner of risks with his life and health, for the cure of imaginary complaints. It is somewhat inconsistent for a newspaper to talk about the dangers of impure water in one column and advise people to take poison in the next, and that too on an assumed diagnosis. It is not always that a physician can diagnosticate *the* disease when he first sees the patient; and other people can't be expected to do better than this. There is something very mysterious about the amount of medical knowledge possessed by old women, uneducated people generally —and journalists. It is an especially noticeable fact that the more ignorant a person, and the less common sense he has, the more infallible remedies he can recommend. Could they be induced to take all their remedies at one sitting the country would probably be less populous, but it would be better off.

CHOLERA MORTALITY IN 1885.—It is reliably estimated that not less than 100,000 deaths were caused in Spain by cholera last summer, more than 2,000 in France, and over 4,000 in Italy and its provinces.

SOCIETY PROCEEDINGS.

CHICAGO MEDICAL SOCIETY.

Stated Meeting, July 6, 1886.

THE PRESIDENT, E. J. DOERING, M.D., IN THE CHAIR.

DR. CHARLES T. PARKES reported a case of

(*a*) URINARY FISTULA OF 12 YEARS' STANDING, FROM GUNSHOT WOUND, WITH SPECIMEN.

(*b*) THIRTY POUND MULTILOCULAR OVARIAN CYST, JELLY CONTENTS, WITH SPECIMEN.

(*c*) LAPAROTOMY FOR MULTIPLE HYDATIDS OF THE ABDOMEN, WITH SPECIMEN.

In regard to the first case, the track of the bullet had been such that the urine could escape through the wound on the thigh. Several unsuccessful attempts had been made to close the fistula. While examining the bladder with a sound Dr. Parkes discovered a stone. Lithotomy was performed, and now the patient urinates per urethram, and the fistula is closing. The calculus was size of pullet's egg, and the nucleus consisted of a piece of bone. Dr. Parkes also exhibited a thirty pound multilocular ovarian cyst with jelly contents, which had been removed without enlarging original incision. He also exhibited specimens of hydatids of abdomen, connected with liver, spleen and intestines. Exploratory operation had been made, but the hydatids were so numerous, large and adherent that they could not be removed. Patient died of exhaustion. Hydatid of spleen measured 23 inches in circumference.

DR. W. T. BELFIELD said: The case in which I am particularly interested is the one in which the stone was found in the bladder. I congratulate Dr. Parkes on his discovery of that stone, because the case had been a reproach to surgery for twenty years. I once saw the patient who was kind enough to perform for my benefit, and threw a stream some little distance through the fistula in the thigh. Probably the stone was overlooked from the fact that it was situated pretty high up, attached to the upper wall of the bladder. I recently had a case in which stones weighing 2½ ounces had been carried by the man for eight years; he had been sounded a number of times, once under chloroform, but with negative result every time. In that case I found one of the stones attached to the fundus of the bladder, the other ensconced behind an enlarged prostate.

DR. R. G. BOGUE said: Mr. President, the cases presented are of a great deal of interest. Probably the most interesting feature of the case of stone in the bladder was the discovery of the offending body and its removal. The strange paths that bullets take in their course through the body, or a portion of it, were found to be so various by those who have had opportunities for observation during the war, that the fact of this bullet passing into the side of the thigh, wounding the bladder and passing out through the peritoneum, was not so very strange; but the repair which took place in the track of the bullet, the lodgment of the large fragment of bone such as we see here, within the bladder where it remained for so long a time without giving a great deal of trouble, is somewhat singular, and the long experience that the man had in seeking relief, or cure, without avail, and the probably accidental discovery of the real difficulty and the cure by removal of the stone, renders the case one of a good deal of interest. The case of hydatid cysts is also of much interest. Hydatid cysts are comparatively rare, although in hospitals where a great many post-mortems are made they are frequently found; in many instances they give so little trouble during their growth that they are only found upon post-mortem examination as an accidental affair, the liver being the seat of the great proportion of instances of their development. In looking over the first volume of the catalogue of the museum of St. George's Hospital, of London, I find that there are eighteen specimens of hydatid cysts mentioned, one of the lungs in a lad who had had chronic cough for some two years, subsided after he had expectorated anhydatid cyst. All the other hydatids developed from the liver; one was a case of multiple cyst where a large cyst had developed upon the superior surface of the liver causing absorption of the diaphragm, entering the thoracic cavity and becoming adherent to the right lung; the abdomen was quite filled with tumors attached to the omentum, the spleen, the kidney, and the under surface of the liver and some to the peritoneal surfaces. In this case there had been, no doubt, a ruptured cyst, as the young man had fallen while at play and the accident was followed by severe symptoms of prostration or collapse, with recognized peritonitis, from which he finally recovered, but afterwards died of erysipelas. The tumors in the abdomen had been diagnosticated some two years previously, but the death was from cause other than that connected with the growths themselves, and the revelation upon post-mortem was that of extensive hydatid disease, the greater part being connected with the liver. All of the other instances of hydatids were of the abdomen, connected with some portion of the liver, either within the organ or upon its surface, so that in all of these eighteen cases the specimens were from the liver or within the abdomen, having the liver for their primary seat, with the exception of the one in the lung.

DR. J. S. JEWELL said he had been deeply interested in listening to the cases reported by Dr. Parkes, but most especially in the cases of urinary fistula. He thought in such cases as stone in the bladder, as well as all others, there should be the most thorough and careful investigation. When one undertakes to explore the bladder for stone, cases like this ought to be held in mind. He suspected that in the case in question Dr. Parkes was pretty nearly giving up the examination with the sound when he made the last sweep that brought the stone to light. He was impressed with the necessity for more thorough work than is usually given in the matter of diagnosis. He was becoming more careful every day, as a matter of habit and duty. In studying cases, apparently the most simple, one of ten finds, where they least suspect it, remarkable things. He thought there was

too much hap-hazard diagnosis to produce first-class work, and this case is an example of it, for if Dr. Parkes could find the stone, others should have done so.

Dr. C. T. Parkes in closing the disscussion said, Dr. Jewell is correct in his supposition, that it was by a mere accident that I found this stone. Perhaps I neglected to say there is no tissue in the body that is free from this parasite; there are only certain places in the body where it is found with the absence of an adventitious sac, but some, especially those found in the brain, are usually cysts with but two layers, the terminal membrane and the external layer. There are many things that seem to refer their formation and development to the circulation of the broad cells through the blood, and there are many things that seem to show that this cannot be possible.

Dr. Henry T. Byford read a paper entitled

THE MECHANICAL TREATMENT OF RETROFLEXION OF THE UTERUS.

(See page 147.)

Dr. H. P. Merriman said: I have been very much interested in the paper, which I think is a valuable one. It seems to deal not merely with the subject of pessaries, but with the various means of support in the case of retroversion. I think a great many physicians, when they find a retroversion, without stopping to consider its cause, at once feel that it is necessary to employ a pessary, and in a great majority of instances the use is followed by failure to cure. We all know that retroversion of the uterus has more than one cause; it is due in a great many cases to pressure from above, to weight within the uterus itself, as in the case of a fibroid tumor; the use of the pessary in these cases is of no value—it is only when there has been a weakening of the supports. In the case of weakened ligaments the pessary is of value as a temporary expedient. When the retroversion is due to a weakened vaginal support, which is true in the great majority of cases, for when we find the perineum ruptured, even partially, we are going to have, sooner or later, a retroversion. We find pessaries valuable in these cases, though, as a rule, we should not depend upon them permanently, because we need to restore the vaginal supports by some kind of operation, such an operation as restoring the perineum and curing a rectocele or cystocele, or by the general operative procedures Dr. Byford has mentioned. It strikes me that what we need in nearly every case is to examine the vagina and restore it to its proper shape and position. The uterus is retroverted because the vaginal support is gone, the wall of the vagina has become relaxed and is letting down the uterus, and we want to restore that wall of the vagina. If there has been a ruptured perineum you must restore the perineum, if there has not been we may be able to restore the uterus, and by keeping it in place for six months or a year regain the support of the rested vagina. This will be done in a little different way from what Dr. Byford has suggested. We have got to fit something to the vagina that will extend the posterior wall and push up the cul-de-sac back of the uterus. We cannot do that where there is tenderness, or where there is a tumor; but where there is not, and it is merely a simple retroversion, then it will be necessary to fit the pessary to the vagina and have it fit in such a way as to elongate and support the vagina in a natural shape. It always distresses me when I hear men speak of fitting a pessary to the uterus. I do not believe it should be fitted to the uterus. It should be fitted to the vagina; the object is to restore the vagina to its natural position, and we must choose a pessary especially adapted for that purpose, and it should lie easily in the vagina.

Dr. William Byford said: Mr. President, I came here with the determination of not speaking upon this subject to-night, because the scope of the paper is so great that if I were to undertake to comment upon half the points it would take too long. I believe the principles of the paper are correct for the treatment of this form of displacement of the uterus, especially the one of acting upon the cervix. My impression is that in retroversion of the uterus there is stretching of the utero-sacral ligaments until they are relaxed, and we find connected with it relaxation of the vagina, which I think is more frequently the consequence than the cause.

Dr. Franklin H. Martin asked Dr. Byford what advantages he claims for his pessary over the German sleigh pessary? If the fulcrum of this pessary is as indicated in the large diagram, situated at a low point on the posterior vaginal wall, how is he going to get any support for his fulcrum in a case of lacerated perineum? His illustration represents the fulcrum resting very low in the vagina, and it would have no support if the perineum is even partially lacerated.

Dr. T. D. Fitch said: Dr. Merriman thinks supports for the uterus are abused. I think so also; they are abused because practitioners do not take the trouble to enlighten themselves with regard to the use of these mechanical supports, but when they get a case that requires a mechanical support they go ahead thoughtlessly to adjust a pessary of the latest device to support a displaced uterus. If from different causes the uterus has become displaced, do not the uterine ligaments become weakened as the result of that displacement? You never have a case of displacement that the uterine supports do not become weakened and relaxed, and can you tone up a muscle or a ligament that is placed upon the stretch to its utmost capacity, by any means, while in this tense condition? It is impossible. We must assist those ligaments to regain their tone by these mechanical supports, relax the ligaments, give them rest, and then by local and general treatment give them tonicity. Having done this you can remove your artificial supports. I fully endorse what Dr. Merriman says with regard to fitting the pessary to the uterus. The pessary should conform to the normal form of the vagina, and that is why we have to have this flexible material so that we can bend them by heat and make them fit the different shaped vaginæ. I do not approve, as a rule, of the principle of leverage. And that is why so many physicians fail in the use of Hodge's pessary; the leverage is too great. The pressure is so great in using this leverage that abrasion occurs, and laceration and cutting through the

tissues. Pessaries should never be fitted in such a way as to produce abrasion, laceration or cutting through the tissues. They should not press hard; they should distend the vagina to its normal length, especially, not its normal breadth, and this can be done without much pressure where the uterus is replaced so the fundus falls forward so as to be in front of the transverse axis of the uterus at the junction of the cervix with the body. If it is thoroughly replaced, then you do not get much pressure when you introduce the pessary. It requires little force to hold the cervix back, and I believe in the majority of cases that here is where the general practitioner fails, viz.: in getting the fundus thoroughly forward, and uterus replaced. Many times it is half raised up and the pessary presses against the body of the uterus so hard that it will imbed its whole thickness in the body of the uterus, producing inflammation.

I have frequently held the sound in the uterus and held the uterus up thoroughly anteverted, or thoroughly at right angles with the vagina and introduced the pessary over the sound so as to secure thorough replacement of the uterus. I believe in the use of the pessary not only as a support to the uterus, but as a splint to the vagina, for if the vagina is kept in its normal position the uterus will necessarily be kept in its natural position. The ideal pessary, in my opinion, is the pessary of Hodge. Emmett's pessary will fit more vaginas than Hodge's or Smith's, the latter differing from Hodge's in that its vulval extremity is narrow instead of broad, Hodge's is broad while Smith's and Emmett's are both narrow at the lower extremity and are supported by the walls of the vagina. Emmett's is much better than Smith's, is much larger, and therefore much less liable to press too hard upon tissues. The pessary of Dr. Byford which he has introduced to-night, is the form which I have improvised extemporaneously for myself, and used in several cases. I had six cases where the tissues in the posterior vaginal junction were so sensitive that it was impossible to use a Hodge, Smith, or Emmett. So I took the ordinary pessary of Hodge or Smith, and bent it in the form of a Byford pessary, and found I could use it where I could not use the others. There is an objection to placing this pressure upon the anterior surface of the cervix with a firm unyielding instrument, and I don't believe that Dr. Byford's pessary will entirely remove that difficulty. He has stated in his paper that there is in a great many cases an absence of the anterior lip of the cervix uteri; there is not sufficient of it to be received on this instrument and to be held, its slips off and down in front of the instrument. This is not the only objection, I have found that while the pressure is brought upon the anterior surface of the cervix by the edges on my instrument, it so interferes with the circulation that the anterior lip will become swollen and œdematous. In his instrument there is no ring for the cervix tc become imprisoned upon, this is certainly a thing most to be desired where there is an ulceration or laceration existing. If the pressure could be divided between the posterior vaginal junction and the anterior surface of the cervix, the œdema would be much less than where the whole uterus was held up by the pessary. These pessaries, Byford's and mine, are certainly very strongly indicated in cases where there is great tenderness in the cul-de-sac. A prolapsed ovary with a retroverted uterus may fall down into the cul-de-sac of Douglass and no pressure can be borne there at all, and in such cases the only pessary that can be used with success is one that brings the pressure to bear upon the anterior surface of the cervix uteri.

DR. SARAH H. STEVENSON said, I would like to ask how to treat cases in which the fundus lies high and in which the pressure upon the surface has no effect whatever. Where the fundus is low there is no difficulty. It is very easy to cure that sort of retroversion, but where the fundus is high I do not know how to treat the case.

DR. HENRY T. BYFORD said in closing this discussion, I think it is wrong to say that pessaries are fitted to the vagina; they may be fitted either to the vagina, uterus, or pelvic floor, or all three. In regard to the bearing of this instrument, it forms almost a semi-circle in which the cervix fits loosely and does not get directly pressed upon. It also makes a good support for a uterus that is not retroverted, but which rests on the pelvic floor. I have a case of bilateral laceration with eversion to the third degree, in which after this pessary was applied to the extensive ulceration due to friction upon the pelvic floor, got well in three weeks. I have a case of fibroid tumor in which the uterus lay directly across the pelvic, the right horn on a level with the cervix, but which is held about straight by this pessary modified by having one shoulder lifted, thus giving the patient back her former comfort. In regard to Dr. Martin's question—in the case of laceration just mentioned the levator vaginæ portion of the levator ani seem ruptured or relaxed, and leaves a large vaginal outlet, and yet a good sized instrument is retained. A large instrument is of course required for a large uterus or a relaxed vagina. You can change the position of the fulcrum by changing the curve of the arms. The sleigh pessary if reversed looks very much like this one with the handle cut off, but it would require a change in the curve of the arms, and in the neck, before it could be similarly used. My pessary comes the nearest being a perfect representation of one of Dr. Fitch's instruments, which he devised before he became sick, but has not exhibited nntil to-night, and which is a modified Courty's. About the operation, I would like to say that my object in performing it is merely to raise the natural tissues, not to build an artificial support or barrier of fanciful shape; not to remove any more tissue than is absolutely necessary, but to draw the tissues together as much as is possible or desirable. What I have tried to do has been to find the directions of the muscular fibres and shorten them a little, and if they have been torn to reunite them as they were originally. At the same time I have always in mind the gathering up of the loosened connective tissue about the denudation, and I sometimes cut a little deeper at certain points in order to cut into it and make a closer union of tissues.

AMERICAN OTOLOGICAL SOCIETY.

Nineteenth Annual Meeting, held at the Pequot House, New London, Conn., July 20, 1886.

The Society was called to order by the PRESIDENT, J. S. PROUT, M.D., of Brooklyn.

Dr. Friedenburg and Dr. Bartolett were invited to take part in the proceedings of the Society.

DR. SAMUEL SEXTON, of New York, read a paper entitled

ACUTE AND CHRONIC PURULENT INFLAMMATION OF THE MIDDLE EAR TRACT AND THEIR COMPLICATIONS.

The paper was based on the records of 2366 cases. These cases were divisible into three classes: Acute, purulent inflammation of the middle ear (739 cases), acute catarrhal inflammation of the middle ear (245 cases), and chronic purulent inflammation (1382 cases). The consideration of acute catarrhal inflammation was included in the consideration of acute purulent inflammation, since in the beginning the conditions were probably the same, although not always going on to suppuration. Out of this series of cases 131 were selected on account of their gravity. Of this number there were twelve deaths. In no disease of man is a knowledge of regional anatomy more important than in diseases of the middle ear. The speaker gave a thorough resumé of the anatomy of the temporal bone, accepting the description of Prof. Leidy as the most satisfactory. The temporal bone at birth is peculiar in the fact that the tympanum and mastoid antrum are about as large as they ever become in adult life. The petroso-squamosal suture is imperfectly closed.

The symptoms were next referred to. Brain symptoms, such as headache, vertigo, pain, delirium, nausea and vomiting may occur in consequence of middle ear disease without lesion of the cerebral structure.

The prognosis of purulent inflammation of the middle ear is favorable when non-meddlesome treatment is adopted, both as regards life and the preservation of hearing. Out of twenty thousand cases of ear disease, where the patient has been seen at the beginning of the attack, no fatal case has occurred. Cases which have come under observation after severe symptoms have appeared, have given twelve deaths. Some of the fatal cases occurred long after the ear trouble had abated.

In regard to treatment, the speaker recommended incision of the drum-head. Trephining of the mastoid process has been recommended by some authorities. Dr. Sexton took up a consideration of the indications which have been regarded as calling for the application of the trephine, and held that they were insufficient. From his experience, he was led to believe that drainage could be best maintained through the natural channel.

DR. SEXTON also described a

NEW OPERATION FOR THE RADICAL CURE OF A PURULENT INFLAMMATION OF THE MIDDLE EAR TRACT.

Since describing a form of chronic purulent inflammation of the attic, in a paper read before the Society last year, it had occurred to him that something might be done with these cases by means of an operation. It seems especially desirable to cure these cases, when the ear remains simply a reservoir for purulent matter, liable at all times to infect the system. It is found that in the greater number of these cases the remaining portion of the conducting mechanism no longer serves to aid in the transmission of sound, but acts rather as an obstruction to drainage. Where the membrana flaccida and a portion of the ossicular chain only remain, the former often becomes thickened and everted, forming, with the altered mucous membrane, a pouch for the retention of putrescent matters which may slowly escape. Where granulation tissue or polypoid growths are present in the attic or antrum, the escape of secretions is still further interfered with. This produces long-continued and great irritation.

The author had observed that in a number of cases where the transmitting mechanism has been lost a cure followed, and it occurred to him that the curative action of nature might be imitated with advantage. Where drainage from the attic and antrum is interrupted a cure can only be assured by an operation permanently clearing the passage outward from the tympanum.

Last year the operation was tried on a long-standing case of otorrhœa due to chronic purulent inflammation of the attic. In order to avoid the danger of using an ordinary lamp in connection with the administration of ether, an electric light was used. The operation has since then been fully performed in several cases.

The first step of the procedure is to separate the membrana flaccida from the edge of the auditory plate, and to remove any portion of the membrana vibrans adherent to the auditory ring. If the malleus and incus remain *in situ*, it is well to divide the tendon of the tensor tympani muscle when present, where it leaves the handle just behind the short process and below the chorda tympani. The chorda tympani, when remaining, is then divided where it enters the tympanum at the pyramid, and also at its exit into the canal of Hugier. The long process of the malleus, being also received into the glenoid fissure by means of this short oblique canal, along with the chorda, may be more or less detached at the same time. The detached tissues and ossicles should now be removed with the forceps. It will frequently be found that the incus, having been displaced, still remains. It may be removed with the attic scraper, which is to be introduced from below and passed up along the inner wall of the tympanum, when the distal extremity may be carried over the incus or malleus, if the latter bone remains, and by traction the ossicles can be detached; polypoid masses, granulation tissue, and the products of inflammation may now be removed with the cutting curette or cutting forceps, and the parts dressed with a four per cent. solution of cocaine to relieve pain.

There is usually free bleeding during the operation, often sufficient to protract it and increase its difficulties.

The effect of injury or destruction of the chorda tympani nearly always manifests itself in some way,

but had never in his experience been a matter of serious import. Disturbances of taste sometimes follow the operation, but they gradually disappear and leave the sense of tasted unaffected.

The drum should be kept well cleansed and light dressings of boracic acid applied until healing takes place. The salicylic acid powder may be applied as freely as can be borne. In some cases this is irritating at first, but tolerance is soon established. It may then be kept up until the parts cease to discharge.

In the cure resulting from this treatment, a dermic transformation of the tympanum takes place, but mucus may occasionally gain admission from the Eustachian tube during recurrent head catarrh or on blowing the nose. This should be frequently removed with cotton wool, and if necessary the drying applications renewed for a time.

Where the incuso-stapedial connection remains, I should not hesitate to perform this operation, unless a very considerable portion of the membrana vibrans was present.

The instruments employed and some of the diseased ossicles removed, were exhibited.

DR. C. R. AGNEW, of New York, said: Where the inflammation has come to involve the mastoid cells, I think that some portion of the external wall of the mastoid should be removed. The objection to the trephine is that it does not expose a sufficient area of the cancellated tissue of the mastoid. I do not see how the new operation which has been described will be of service in these cases.

DR. SEXTON: The new operation I recommended only in chronic cases.

DR. H. KNAPP, of New York: The upper tympanic pneumatic cells resemble, to a certain degree, the frontal sinuses. These have a direct natural drainage through the infundibulum into the nose. When this is closed by disease, the lateral part of the sinus over the orbit dilates and the cavity is more easily reached and more effective drainage is obtained by opening the sinus from the orbit. In a like manner, we obtain in most cases easier and more effective drainage of the supra-tympanic cells by opening the mastoid cells with which they communicate.

DR. A. H. BUCK, of New York, read a paper on

PAINLESS AND ONLY SLIGHTLY PAINFUL ULCERATION OF THE MEMBRANA TYMPANI, PROBABLY OF TUBERCULAR NATURE.

The speaker stated that the recognition of the early stages of tubercular disease was important, and the object of the paper was to call attention to the features by which this could be recognized. Three cases had been seen by the author. The patients were in a condition of fair general health. There was no evidence of pulmonary disease in either of the three cases. Tinnitis and slight impairment of hearing were the first symptoms noticed. In two of the cases, which were examined at an early period, there was slight redness and swelling at the upper part of the membrana tympani and of the skin covering the bony wall. In a short time the infiltration extended into the entire posterior superior quadrant. The membrane became bulging, and at the most prominent point a perforation established itself.

Following this the disease followed a somewhat different course in the different cases. In one case the upper posterior portion of the canal became more congested, as though the bone were the seat of the disease. In the last case there was gradual improvement. The hearing was slightly impaired. In the other two cases discharge became profuse. In one case sudden hæmorrhage from the lungs occurred.

In the incipient stage, the distinguishing features are the tendency to localization in the upper posterior portion of the membrana tympani, the marked insignificance of the pain or even its entire absence, and intolerance to all but the simplest local measures.

DR. E. GREUNING, of New York: I have seen a number of cases in which I was led to infer that the ulceration of the drum-head was due to tuberculosis. I distinctly recall three cases. In one case, that of a young man, only one ear was affected. There was very little purulent discharge. There were two openings, showing that this was not the result of perforation from accumulation. It appeared to be a melting down process. In another case there were multiple openings so that the membrane appeared to be honeycombed.

DR. C. R. AGNEW: I have seen a number of cases in which I supposed that the origin was tuberculosis. In a considerable number of these cases the main lesion has been in the drum-head below the extremity of the handle of the malleus. I recall the case of a young man who had trouble at the apex of both lungs when he came under observation. A short time previous he had begun to have slight ringing and a sense of dullness in the ear. This had gone on for two or three days, and then when blowing his nose, he found that he whistled through his ear. In the ear complained of I found an opening looking as though it had been removed by a punch. The opening was elliptical. Within a few days the same thing occurred in the other ear.

DR. J. A. ANDREWS, of New York: In regard to the presence of the bacillus in middle ear trouble occurring with phthisis, although I have examined a large number of cases, I have never found the bacillus.

DR. BUCK: I have not looked for the bacilli; but even if they are not found, tuberculosis should not be excluded.

DR. J. ORNE GREEN, of Boston: I have been much interested in this paper. When I find this destruction coming on without pain and without discharge, I at once suspect a tubercular diathesis, and I generally find a history of it. I also agree with the speaker that only the very mildest measures can be used. Strong applications make the trouble worse. Twice in cases of advanced tuberculosis I have seen on examining this membrane, little white glistening points about the size of a pin-head, not secreting at all and in one case with no congestion. In both cases the spots disappeared in a few days, and within twenty-four hours there was a little clean punched out opening in the drum membrane. This occurred without any discharge. It seemed to me that I was dealing with isolated tubercles in the tissue of the drum membrane. One of these cases died a few months later from the general disease.

DR. A. H. BUCK also read a paper on

CERTAIN TECHNICAL DETAILS RELATING TO OPERATIONS ON THE MASTOID PROCESS.

The speaker first referred to the objections which had been made to the drill. It has been stated that there is danger of plunging the drill into the lateral sinus or even into the brain. He had, however, found no tendency for the drill to go astray. It had been said that the opening made was too small, but any sized drill might be made. He used a drill one-fourth of an inch in diameter until the antrum was reached, and finished the operation with a smaller drill. This gives a sufficient opening for drainage. Where there is a large sequestrum, it is necessary to make a larger opening. The objections to the use of the chisel were next taken up. When this is used the wound in the adjacent soft parts must be larger, and the opening in the bone is more extensive, leading to a depressed cicatrix. More time is required in the operation and it is not free from danger. A study of the statistics of both methods seems to show that there is nothing to warrant the statement that chisels and gouges are to be greatly preferred to drills in establishing opening into the mastoid process.

In operating with the drill, after making an opening, he cuts out a little canal for the escape of the discharges, for the opening made by the drill is covered by the flap when it comes into position. For the first four or five days after the operation, the wound is irrigated once a day with a bichloride solution, 1–2000.

Dr. Buck said that in his earlier operations, he applied the drill a short distance in front of the vertical line. His present plan is different. A straight vertical incision three inches long is made. By this means he exposed the mastoid process where it curves into the meatus. The drill is then applied to the first flat surface. The only difficulty is in establishing the final communication between the canal and the antrum.

DR. J. ORNE GREEN: I have used the drill almost entirely. I prefer to make a small opening at first, and I am then guided by what I find. Some cases require a large opening, and in such cases, the gouge and chisel will come into play. In the majority of cases, a small opening is sufficient. In some of these cases the use of the dental engine is very applicable. I have a modification of the engine which may be screwed to a table. It is turned by a handle and any one can furnish the power. No skill is required, as in the engine worked with the treadle. Used in this way, I have found the engine of great service. In the cases which I have operated on, I have put in a drainage-tube and kept it in as long as possible. In the after-treatment I have used a solution of carbolic acid, 1 to 80. Of late years, I have applied an antiseptic gauze dressing and kept that on.

DR. H. KNAPP, of New York: I wish to make some remarks in favor of the chisel. With the chisel, you can at every step observe the condition of the tissue which you are cutting. With the chisel, you have a perfectly smooth surface, rendering it easier to cleanse the wound. It is also very easy to manage the chisel,

DR. H. D. NOYES, of New York: There is much less danger in the use of the chisel than of the drill. There are often great differences in the anatomical relations of the parts. The lateral sinus is not always found in the same place. With the chisel or the gouge, you explore the part layer by layer, and ascertain how the parts are situated. This is a strong argument in favor of the instrument.

DR. J. A. ANDREWS: In my operations, I have always used the chisel, but have always begun with the drill. I believe that the chisel is the best instrument and can be used with more caution than the drill. I always make a large opening, for I believe that a collection of pus should always be given free vent.

DR. E. GREUNING: I have opened the mastoid process seventy-seven times. At first I used the drill, and in acute cases the results were all that could be desired. The drill was, however, not applicable to all cases, and I have since used the chisel. A small opening may be made with the chisel. What can be done with the drill can be done with the chisel.

DR. BUCK: From the direction which the discussion has taken it might appear that I am in antagonism with the chisel. I am not in antagonism with the chisel in those cases where a large portion of bone is to be removed. I leave those out of consideration in my paper. Where a large mass is to be removed, it cannot be removed with the drill. The two instruments cannot come into conflict.

A communication with reference to the organization of *A Congress of American Physicians and Surgeons*, was presented and referred to a committee consisting of Dr. C. R. Agnew, Dr. H. Knapp and Dr. John Green to consider and report at the evening session.

EVENING SESSION.

DR. H. KNAPP, of New York, read a report of a

FATAL TERMINATION OF A CASE OF SCLEROSING MASTOIDITIS AFTER CHISELING OF THE BONE.

A man, aged 50, had extensive suppuration in both ears after scarlet fever in childhood. The right ear became totally deaf, and the left very hard of hearing, became deaf (hearing reduced to a quantitative perception of sound) by a recent attack of dizziness. Dr. Knapp found both tympanic membranes absent, the cavities sclerosed in both, pale in the right but congested in the left ear. Behind the left ear was found a cavity fully an inch deep, lined with immovable skin, the result of former exfoliation of bone. Three weeks later facial paralysis on the left side occurred. It disappeared in two weeks, under steaming and large doses of iodide of potasium. Two weeks later, the patient suffered with constant intense headache and nausea. The mastoid was opened to the depth of half an inch by chiseling. The bone was compact and in the depth, very vascular. During the first two days, the patient was sleepy; could not be aroused on the third and died comatose on the fifth. No autopsy was allowed.

Death was due to traumatic meningitis. In regard to opening the bone in sclerosing mastoiditis, the

prognosis is good when the sclerosis is the result of catarrhal or plastic inflammation, but bad when it was the consequence of old caries or necrosis. There are cases on the border line, and even when the prognosis was bad, the indications might be strong. The operation will rescue a certain number of the otherwise fatal cases.

DR. POMEROY, of New York, reported

A CASE OF ABSCESS OF THE MASTOID CELLS WHERE THE CHIEF INDICATION FOR OPERATION WAS ELEVATION OF TEMPERATURE.

A. S., age 20 years, fairly robust, had a violent attack of otitis of the right ear, which came on Jan. 30, 1886. The following morning, there was free discharge. February 1, he entered the hospital when a large perforation was found; a poultice and warm douches was ordered. By February 4, the membrane looked almost normal. There was some pain in the occiput and a temperature of 103.6. Ten grains of quinine with twenty grains of iodide of potassium to be repeated in three hours was ordered. This was followed by a reduction of two degrees in the temperature. The following day the temperature again went up, and it was apparent that a purulent process was going on. There was no swelling over the mastoid and the pain was no greater than might be expected from a neuralgic condition.

After consultation, it was decided to open the mastoid process. A drill was introduced and from four to six drops of pus evacuated. After the operation the patient continued to improve until he was discharged cured.

DR. J. A. LIPPINCOTT, of Pittsburg: Something over two years ago, I operated in a case of sclerosing mastoiditis which had been suffering intense pain for twelve months, and which did not yield to alterative and tonic treatment. After the operation, the patient remained well for thirteen months. The pain then returned and continued twelve months in spite of all treatment. Last March a second operation was performed, and a larger opening with the drill made. No benefit was produced.

DR. KNAPP: I should like to state that the cases which I have reported where benefit followed chiseling open a sclerosed mastoid, have remained well.

DR. CHARLES H. BURNETT, of Philadelphia, reported

TWO CASES OF CHRONIC PURULENT INFLAMMATION OF THE ATTIC OF THE TYMPANUM, WITH PERFORATION OF THE MEMBRANA FLACCIDA, TREATED WITH PEROXIDE OF HYDROGEN.

In the first case no application had had the same good effect as the peroxide of hydrogen. Every other medicament had seemed to irritate rather than heal the inflamed mucous membrane. In the second case, the discharge which had been very chronic was promptly checked by the use of the peroxide of hydrogen.

The chemical formula of this drug is H_2O_2, and by its affinity for albuminous matters, especially those of pus, it seeks every particle of this matter, in a cavity like the middle ear, and thoroughly cleanse the parts. The union with pus is shown by a copious foam, whch boils out of the external ear. When the foaming ceases and the peroxide returns clear, the diseased cavity had been thoroughly cleansed. In many cases this seems sufficient to effect a cure. Where there is a perforation in the membrana flaccida, the application is made by means of the tympanic syringe, the long and slender nozzle of which is introduced through the perforation at the attic of the tympanum. The peroxide is used undiluted.

DR. WILLIAM S. LITTLE, of Philadelphia, read a paper entitled

IN THE PHYSIOLOGY OF HEARING IS THERE AN OVERLAPPING OF EACH AUDITORY FIELD THE SAME AS IN BINOCULAR VISION?

Cases of one-sided deafness afford the opportunity of mapping out the auditory field for one ear, and it is found with the watch at two feet from the ear the tick can be heard about ten or fifteen degrees across the median line of the head. This gives more scope to hear sounds produced on the side of the head opposite the good ear. The tuning fork is not heard even up to the median line on the side of the ear tested. The watch has been used in making the observations. If the field of one ear reaches beyond the median line to about ten degrees, we have when both ears are normal, an over-lapping of each field to the extent of fully ten degrees on either side of the median line in front, above and behind the head. Each ear hears in this area of twenty degrees. Outside of this area, each ear hears singly. By means of this, there is no need to turn each ear towards the source of sounds which reach the individual. The direction of sound is best found in this way for safety in walking and maintaining the erect position. Sudden loss of hearing on one side puts the sufferer to great annoyance, as the ability to determine the direction of sounds is in a measure lost, the patient often looking in the wrong place when called. It is fully as perplexing, if not more so than in a case of sudden loss of sight in one eye, making seeing dependent on one organ of vision. The attempt to restore hearing should be directed not only to obtain hearing in a line directly in front of the ear, but also to increase the area of hearing in the affected ear or in both affected ears, till it reaches if possible, the coalescence seen in normal ears.

The literature of the subject of acoution and otology does not give any information on this point. Too close a comparison between the eye and the ear cannot be made. The auditory and optic nerves respond to very different media. The auditory nerve has no commissure or decussation of fibres like the optic, and has a less central position in the cerebrum.

The proposition with reference to the organization of

A CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS

was discussed and a Committee of Conference was appointed, consisting of Drs. C. R. Agnew, New York; H. Knapp, New York; John Green, St. Louis; W. H. Carmalt, New Haven, and George Strawbridge, Philadelphia.

OFFICERS FOR THE ENSUING YEAR:

President, Dr. J. S. Prout, of Brooklyn; Vice-President, Dr. Samuel Sexton, of New York; Secretary and Treasurer, Dr. J. J. B. Vermyne, New Bedford, Mass.; Committee on Membership, Drs. Gorham Bacon, W. S. Little and E. W. Bartlett.

The following were elected to membership: Dr. J. B. Emerson, of New York; Dr. J. O. Tansley, of New York; Dr. J. L. Minor, of New York; Dr. Henry L. Morse, of Boston; Dr. Huntington Richards, of New York, and Dr. T. Y. Sutphen, of Newark, New Jersey.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Twelfth Annual Meeting, Held in Quincy, Ill., July 13 and 14.

THE PRESIDENT, ARCH. DIXON, M.D., OF HENDERSON, KY., IN THE CHAIR.

In the absence of the Secretary, Dr. E. B. Montgomery, of Quincy, was made Secretary.

DR. H. M. LANE, of Carthage, Missouri, read a paper on

YELLOW FEVER IN BRAZIL,

giving some of his observations and experiences in the use of Freire's method. He asked that the Society memorialize Congress on the question of appointing a committee to investigate the method of Freire.

DR. LOUIS BAUER, of St. Louis, presented a patient on whom he had operated performing

LAPAROTOMY FOR SYMPTOMS OF ILEUS,

but had discovered an abscess in the liver from which he drew a quart of pus, afterwards washing out the abscess cavity with antiseptic fluids. A portion of the gall-bladder sloughed out, and the large intestine was perforated. The patient made a good recovery.

DR. F. W. BEARD, of Vincennes, Ind., related a case in which he had observed emission of semen in death by hanging.

In the evening DR. A. H. OHMAN-DUMESNIL, of St. Louis, read a paper on

AN UNUSUAL CASE OF LUPUS ERYTHEMATOSUS.

In his case, a farmer 52 years of age, the lupus involved the dorsum of the hand and arm, but occasioned no complaint on the part of the patient. He used a concentrated solution of lactic acid in the treatment of the case. He had several microscopes and illustrated the pathology of the disease.

THE PRESIDENT read a paper on

PERINEAL LACERATIONS,

giving an account of Simon's method of operating.

DR. I. N. LOVE, of St. Louis, read a paper on

ARTIFICIAL ALIMENTATION.

He regarded the skin, the rectum and the vagina as surfaces from which much nourishment might be absorbed and life prolonged. He drew the following conclusions:

1. In cases which demand artificial alimentation, when the conditions will permit, the vagina may be utilized to supplement feeding by the rectum.

2. In some instances diseases of the alimentary canal in its entirety preclude feeding by either the stomach or the rectum, in which cases the vagina may be utilized to practical advantage.

3. That whether the vagina or rectum be used for purposes of feeding, the materials should be as thoroughly digested previous to using as possible; the milk albumen or beef fibre completely peptonized and the starchy matters changed into dextrose or glucose.

4. In many instances the vagina may be utilized for purposes of general medication and stimulation, and the stomach saved for the important one of feeding.

5. In many cases vaginal feeding, stimulation and medication is beneficial; in many others it is a potent means for saving and prolonging life.

6. In both rectal and vaginal feeding the same gentle care is necessary, and one advantage possessed by the latter over the former, is that the vagina is much the more tolerant of intrusion, and can be utilized for an almost unlimited time without revolting.

MORNING SESSION—JULY 14.

A discussion of Dr. Love's paper was had, after which the President announced as a Nominating Committee Dr. Jos. Robbins, of Quincy, Dr. Dudley S. Reynolds, of Louisville, Dr. Frank R. Fry, of St. Louis, and Dr. F. W. Beard, of Vincennes, Ind.

DR. FRANK R. FRY, of St. Louis, presented a paper on some of the current opinions regarding

THE ETIOLOGY OF CHOREA.

He was opposed to the theory of the causal relation between rheumatism and chorea, and believed it to be a pure neurosis.

DR. DUDLEY S. REYNOLDS, of Louisville, offered the following resolution, which was seconded by Dr. Wm. Porter, of St. Louis:

Resolved, That the Mississippi Valley Medical Association adopts as part of its organic law, and binding upon all its members, the Code of Ethics of the American Medical Association. After a spirited discussion the resolution was adopted with only two dissenting voices.

The Committee on Nominations reported the following

OFFICERS FOR THE ENSUING YEAR.

President, Isaac N. Love, St. Louis, Mo.; *First Vice-President*, Joseph Robbins, Quincy, Ill.; *Second Vice-President*, Jacob L. Geiger, St. Joseph, Mo.; *Third Vice-President*, Thos. B. Harvey, Indianapolis, Ind.; *Secretary*, J. L. Gray, Chicago; *Treasurer*, A. H. Ohman-Dumesnil, St. Louis, Mo.; *Assistant Secretary*, Edw. Allcorn, Houstonville, Ky.; *Committee of Arrangements*, Dudley S. Reynolds, Louisville, Ky.; Louis McMurtry, Danville, Ky.; James H. Letcher, Henderson, Ky.; J. N. McCormick, Bowling Green, Ky.; L. B. Todd, Lexington, Ky.;

J. Q. A. Stewart, Frankfort, Ky.; J. M. Holloway, Louisville, Ky.; J. M. Mathews, Louisville, Ky.

The next annual meeting will be held at Crab Orchard Springs, Ky., on the second Tuesday in July, 1887.

The President-elect was escorted to the chair, and after a few remarks appointed the following committee to draft a Constitution and By-Laws: Robert Barclay, of St. Louis, Wm. Porter, of St. Louis, and Jos. Robbins, of Quincy.

Dr. Dudley S. Reynolds read a paper on *Optical Defects in the Eye and their Correction*. Papers were also read by Dr. Amos Sawyer, of Hillsboro, Ill., on *The Therapeutics of Bismuth and Asclepias Tuberosa* (see page 123, JOURNAL of July 31), by Dr. L. H. Cohen, of Quincy, on *Electro-Therapeutics*, and Dr. E. B. Montgomery on the *Therapeutics of Hot Water*.

FOREIGN CORRESPONDENCE

LETTER FROM LONDON.

(FROM OUR OWN CORRESPONDENT.)

Preventive Inoculation against Zymotic Diseases—Experiments on Animals in England—Sulphur in Diphtheria—Hospital Accommodation.

At the recent meeting of the Sanitary Institute of Great Britain Dr. T. W. Hime, Medical Officer of Health for Bradford, read a paper on "Pasteur and Preventive Inoculation against Zymotic Diseases." In the course of his address the lecturer dwelt at length upon the discoveries made by Pasteur with regard to rabies. He fancied, he said, that the interest attaching to the disease was to a large extent due to the cruel uncertainty which attended it. If the danger of hydrophobia were reckoned by the number of deaths it would be a comparatively small matter, though in the last thirty-four years there had been 884 deaths in England, and the numbers were increasing. In the ten years ending 1860 there were 98 deaths, and in the next ten years 143, and in the ten years ending 1880, 477 deaths. Nothing, practically speaking, was known of the disease, or of the way in which it was propagated, until Pasteur's time. He undertook his investigations in 1879, and by the next year he had discovered that if one had wanted to produce the disease certainly and without doubt it was necessary to resort to inoculation with nervous tissue. By 1884 Pasteur had inoculated a large number of animals, and he had discovered that if an ape were inoculated with the material taken from the spinal column of an animal that died mad, and the virus was passed on to successive apes, the effects became milder and milder; on the other hand, in guinea pigs it became stronger, and made them perfectly savage. Rabbits also suffered with a greater degree of intensity as the series became longer. In July last the first human patient, a boy, was inoculated by Pasteur, after consultation as to whether the operation was justifiable. Since that 1474 persons had been inoculated, 49 for wolf bites, of whom seven had died, and 1425 for dog bites, of whom four had died. Eliminating the cases still possibly in danger, he found that there were 113 persons who had been treated after being bitten by animals proved, either by the death of other persons bitten by the same animals, or by experiments, to have been rabid. Of these only one had died. Then 936 persons had been treated for bites from animals proved by chemical observation to have been rabid. Amongst these there had been only three deaths. Another class of cases was that in which persons had been bitten by dogs which had escaped, and were not proved to have been mad. Amongst these there had been one death. Of the persons bitten by wolves the mortality was 14 per cent., whereas, so far as any statistics were available, it was, without Pasteur's treatment, something like 80 per cent. Wolves inflicted very severe wounds, and a large amount of virus was consequently absorbed. The efficacy of Pasteur's treatment for wounds inflicted on the hands or face, the most exposed parts of the body, was shown by the fact that the mortality was only 1.8 per cent, whereas it was known to have been 88 per cent. amongst persons bitten previously to his discoveries. The value of his system in protecting dogs had been proved beyond a doubt by the Commission appointed by the French Government. Out of twenty-three dogs presented by Pasteur after treatment for the experiments, the Commission had not succeeded in making a single one mad; whereas out of nineteen operated upon without previous treatment, fourteen had died mad. No scientific man of standing had made any objection to Pasteur's method, and he (Dr. Hime) hoped that the evidence he had laid before the Institute would be thought conclusive. He added that Pasteur had taken no patent, and had sought neither fortune nor honor at the hands of the French Government. His laboratories were open to all to go and investigate for themselves. In conclusion, he said it was a fortunate thing that M. Pasteur was not an Englishman, for if he had been it would have been impossible for him to embark in this country upon the work which he had so successfully prosecuted for the benefit of mankind. Dr. Hime himself is about to undergo treatment at the hands of M. Pasteur, having recently been severely wounded while conducting a post-mortem examination on the body of a dog that had died of hydrophobia.

The report from inspectors on experiments performed on living animals during the last year has just been published. The total number of experiments performed during the year was about 800. Of these 210 were done under the restrictions of the license alone, and eighty-two lecture demonstrations under similar restrictions. As regards the amount of pain involved in these experiments, in all of them, except those performed under special certificates, the animals are rendered insensible during the whole experiment, and are not permitted to recover consciousness. With regard to the experiments under special certificates, which dispense either partially or entirely with the use of anæsthetics, no less than 328 consisted, so far as any operative proceeding was concerned, in simple inoculation or hypodermic injection, either with some

morbific virus or for the purpose of therapeutic inquiry, and in which the administration of an anæsthetic, to which all animals have a great repugnance, would only entail needless annoyance and distress. Considered from the returns that have been received from various operators, and from other considerations drawn from their reports, it appears that the number of animals that suffered any appreciable pain might be estimated at thirty-five or forty, and these, for the most part, frogs. Although the number of experiments in 1885 was nearly double those performed in 1884, the increased number consisted of experiments not, or scarcely, involving any appreciable increase of suffering of the animals employed.

Arguing from analogy, and seeing the success of sulphur in vineyards for the cure of *oïdium*, Dr. Corbin has been trying it as the most rational treatment to adopt to destroy the fungus of diphtheria. Finely powdered sulphur blown down on to the membrane through a quill or glass tube causes no pain, and very little distress to even very young children, and in such cases it is the only local treatment which the Doctor finds himself able to adopt. Carbolic acid spray he has found useless as a germicide, because the mouth and throat will not tolerate it of sufficient strength to destroy the vitality of the false membrane, but in strength of 1 in 66 or 1 in 80 it is very soothing to the inflamed throat. Boracic acid spray, on the contrary, he finds extremely useful, for it appears to have the power of dissolving the membrane whose vitality the sulphur has destroyed, and thus a fresh surface is exposed for the next application of sulphur to act upon.

The following figures are interesting: In Glasgow there is hospital accommodation for one in 700 of the inhabitants; in Manchester one in 500; in Dublin one in 200; while in North London there is only one hospital bed for every 25,000 of the inhabitants.

DOMESTIC CORRESPONDENCE

THE ASSOCIATION OF AMERICAN PHYSICIANS.

To the Editor of the Journal:

Dear Sir:—Referring to the communications in your issues of the 24th and 3d ults, with regard to "The Association of American Physicians," it was with extreme reluctance, and only after recalling the fact that published matter of this kind becomes the source of history—history which in this instance would be erroneous—that I decided to write briefly the actual history of the formation of the society.

First, the organization was altogether independent of and prior to the idea of a Congress of American Physicians and Surgeons. The original suggestion came more than three years ago, *not* from Philadelphia or New York or Boston, but from Toronto, Canada. It was based upon the feeling that such a society had become almost necessary in view of the fact that all departments of medicine except general medicine and pathology were represented in special societies devoted to their interests. Further, it was long after the arrangements for organization were essentially completed, that the idea of a Congress of American Physicians and Surgeons was formulated by the American Surgical Association.

Second, the Association was not formed in antagonism to the American Medical Association, and it was a matter of serious solicitude with some of the founders lest such interpretation should be put upon its formation; but this was not considered sufficient reason for giving up a plan which promised so much for medicine and pathology. So far as I know, no member who is also a member of the American Medical Association has "forsworn his allegiance" to the latter, as is alleged by your Philadelphia correspondent.

Third, in selecting original members for the "active list," it was desired to secure men who had been and still are active in furthering the interests of medicine and pathology either as practitioners, teachers or writers. That this was accomplished with reasonable success, when it is remembered that a certain number of vacancies are maintained for the present, will, I think, be conceded by the unprejudiced observer.

Finally, with regard to the name chosen, a moment's consideration should satisfy the critic that the use of any other "article" than the "definite" would produce a ludicrous and impossible title. Such a title would be "*An* Association of American Physicians," "*An* American Gynecological Society," "*An* American Ophthalmological Society," etc.

I should have been glad to give your Philadelphia correspondent or any one else any information desired, had it been sought. Respectfully,

James Tyson,
Secretary of the meeting at Washington, 1886.

PROPOSED NEW MEDICAL ASSOCIATION.

To the Editor of the Journal:

Dear Sir:—While not one of the Original Committee of Seven, I nevertheless thought I was in close affiliation with them; but alack-a-day! I find that I am farther off than a poor relation. Where I am now I can hardly tell. I am not in holy fellowship with the American Medical Association, nor have I been included in the one hundred eminent martyrs; alas! not only not included, but not even invited to include myself. My pride has had a great fall, but by my conscience I don't deserve it, for I fought and bled as much as any of the limited one hundred, and more than a great many.

You may say that I am not eminent. Well, I will acknowledge that I once thought so myself, but the *Medical Record* has maintained that all who asserted their independence, manhood, etc., and who acted in sympathy with the nonconformists, became *instanter* eminent. I fulfilled all these conditions; ergo, I *am* eminent.

I was formerly under the impression that only new-coders were eminent practitioners, until the Editor of the *Medical Record* (who is authority on such subjects) enlarged the definition so that even old-coders might become eminent. As I have said,

I have complied with the requisite stipulations for old-coders to attain the modern but select degree, and yet I am left out in the cold. I suppose there must be a still higher degree, to which I have not yet attained, which places me among the great majority of the discarded.

However, I will not be so slighted, but propose to organize "The Association of Eminent American Physicians of the Second Degree"—limited; place of meeting Washington, D. C. You need not think we are not going to have our little whack at the Ninth International Medical Congress—so beware!

"IMPRIMATUR."

AMERICAN MEDICAL ASSOCIATION.

FORMED IN 1846.

Next annual meeting will be held June 7th, 8th, 9th, and 10th, 1887, in Chicago, Ill. President, E. H. Gregory, M.D., St. Louis, Mo. Permanent Secretary, W. B. Atkinson, M.D., Philadelphia, Penn. Assistant Secretary, J. Nevins Hyde, M.D., Chicago, Ill. Treasurer, Richard J. Dunglison, M.D., Philadelphia, Penn. Librarian, C. H. A. Kleinschmidt, M.D., Washington, D. C. Chairman of Committee of Arrangements, Charles Gilman Smith, M.D., Chicago, Ill.

All membership dues should be sent direct to the Treasurer, RICHARD J. DUNGLISON, M.D., lock box 1274, Philadelphia, Penn.

MISCELLANEOUS.

FAVUS OF FOWLS AND MAN.—At a recent meeting of the Paris Biological Society, M. NEUMANN stated that the favus of fowls is identical with the favus of human beings. He inoculated a young dog with fowl favus and another with the favus of the human subject; the affections of the two animals presented the same clinical features. Both were quickly cured without treatment as generally happens in this affection with animals. The same experiment was repeated on two rabbits with the same results. These researches of M. Neumann are fresh facts added to those already accumulated, showing the necessity for sanitary inspection of farmyards.—*Sanitary Record*, July, 15, 1886.

THE OUTLOOK FOR THE CONGRESS.—PROF. W. F. PECK, of the Iowa State Medical University, who is now making an extended tour of Europe, writes as follows from Amsterdam:

"I visited Prof. Esmarch the other day in Kiel. He will come to the International Medical Congress. From what I can learn the profession of Europe will send a large delegation. Prof. Billroth told me that he expected to attend, and Carl Braun will accompany him."

DISINFECTION OF RAILWAY CATTLE-TRUCKS.—Dr. Redard, Surgeon-in-Chief to the French Railways has lately presented a detailed report on the disinfection of cattle-trucks to the Government department charged with the railway administration throughout France. After reviewing the cleansing methods adopted in different countries, and recording experiments with chemical antiseptics and disinfectants, Dr. Redard arrives at the following conclusions: Chemical disinfectants are bad microbicides, requiring large quantities and prolonged contact. Spores and germ-corpuscles resist almost all chemical disinfectants. Some substances, which are very active against spores and bacteria, are very frequently powerless against a virus, unless incorporated with it freely and long. Heat is the disinfectant *par excellence*. Numerous experiments with virus and successive inoculations proved that absolute disinfection can only be obtained with certainty with steam superheated to + 110° C. This is not easy to obtain. The different processes hitherto in use only yield boiling water or steam below 100° C. Dr. Redard therefore proposes to pass the steam through a serpentine coil placed in the locomotive boiler. Steam from 110° to 130° C. may thus be obtained.—*Lancet*, July 10, 1886.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JULY 24, 1886, TO JULY 30, 1886.

Col. Joseph B. B. Brown, Surgeon, retired from active service, July 26, 1886. (S. O. 171, A. G. O., July 26, 1886.)

Major J. R. Gibson, Surgeon, ordered from Dept. East to Dept. Mo. on expiration of leave of absence granted in S. O. 158, c. s., A. G. O. (S. O. 168, A. G. O., July 22, 1886.)

Major Edwin Bentley, Surgeon, ordered for duty as Post Surgeon, Ft. Davis, Tex. (S. O. 92, Dept. Texas, July 22, 1886.)

Major M. K. Taylor, Surgeon, granted leave of absence for one month, with permission to apply for one month's extension. (S. O. 77, Dept. Mo., July 24, 1886.)

Major Passmore Middleton, Surgeon, ordered to Dept. East from Dept. Mo. (S. O. 168, A. G. O., July 22, 1886.)

Capt. Joseph B. Girard, Asst. Surgeon, granted leave of absence for three months, with permission to go beyond sea. (S. O. 170, A. G. O., July 24, 1886.)

Capt. Samuel Q. Robinson, Asst. Surgeon, ordered for duty as Post Surgeon, Ft. Brown, Texas. (S. O. 92, Dept. Tex., July 22, 1886.)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, DURING THE WEEK ENDING JULY 31, 1886.

Lumsden, J. A., P. A. Surgeon, to duty at Marine Barracks, Washington, for month of August.

Cordeiro, F. J. B., Asst. Surgeon, ordered to receiving ship "Minnesota"

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED JULY 31, 1886.

Long, W. H., Surgeon, granted leave of absence for fifteen days. July 30, 1886.

Sawtelle, H. W., Surgeon, to proceed to Portland, Oregon, and Port Townsend, W. T., as inspector. July 29, 1886.

Devan, S. C., P. A. Surgeon, granted leave of absence for ten days. July 26, 1886.

Fattic, J. B., Asst. Surgeon, granted leave of absence for twenty-nine days. July 26, 1886.

Carmichael, D. A., P. A. Surgeon, granted leave of absence for thirty days. July 24, 1886.

Magruder, P. M., Asst. Surgeon, to proceed to Cairo, Ill., for temporary duty. July 22, 1886.